

---

**QUARTERLY MONITORING REPORT  
ACTIVE TREATMENT SYSTEMS  
SECOND QUARTER 2008**

**AMERICAN CHEMICAL SERVICE NPL SITE  
GRIFFITH, INDIANA**

**MWH File No. 4050577**

**Prepared For:**

**American Chemical Service NPL Site RD/RA Executive Committee  
Griffith, Indiana**

---

**Prepared By:**

**MWH Americas, Inc.  
175 West Jackson Boulevard, Suite 1900  
Chicago, Illinois 60604**

**December 2008**

**QUARTERLY MONITORING REPORT FOR  
ACTIVE TREATMENT SYSTEMS  
SECOND QUARTER 2008**

**AMERICAN CHEMICAL SERVICE NPL SITE  
GRIFFITH, INDIANA**

**Prepared For:**

**American Chemical Service NPL Site RD/RA Executive Committee  
Griffith, Indiana**

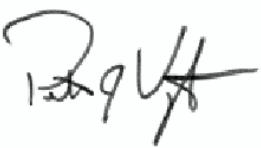
Prepared by:

  
Chris A. Daly, P.E.  
Project Engineer

December 2, 2008

Date

Approved by:

  
Peter Vagt, Ph.D., CPG  
Project Manager

December 2, 2008

Date

## TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
ACRONYMS AND ABBREVIATIONS .....	iv
1.0 INTRODUCTION .....	1
2.0 GWTP COMPLIANCE MONITORING .....	3
2.1 SAMPLING REQUIREMENTS .....	3
2.2 EFFLUENT SAMPLING AND ANALYSES .....	3
2.3 EFFLUENT ANALYTICAL RESULTS .....	4
3.0 ISVE SYSTEM MONITORING .....	5
3.1 THERMAL OXIDIZER OFF-GAS SAMPLING .....	5
3.2 SAMPLING RESULTS .....	5
3.3 ISVE SYSTEM MONITORING .....	6
3.4 PRODUCT REMOVAL ACTIVITIES .....	6
4.0 GWTP PROCESS MODIFICATIONS AND REPAIRS .....	7
4.1 GWTP PROCESS MODIFICATIONS .....	7
4.2 GWTP REPAIRS AND MAINTENANCE .....	7
5.0 ISVE PROCESS MODIFICATIONS AND REPAIRS .....	8
5.1 ISVE PROCESS MODIFICATIONS .....	8
5.2 ISVE REPAIRS AND MAINTENANCE .....	8
6.0 PGCS AND BWES GAUGING ACTIVITIES .....	10
7.0 SYSTEM OPERATION .....	12
8.0 CONCLUSIONS AND RECOMMENDATIONS .....	13
8.1 GWTP OPERATION .....	13
8.2 ISVE OPERATION .....	13
8.3 GROUNDWATER LEVEL MONITORING .....	13
8.4 HEALTH AND SAFETY .....	14
9.0 REFERENCES .....	15

## TABLES

Table 2.1	Groundwater Treatment System Effluent Discharge Limits
Table 2.2	Summary of Effluent Analytical Results – Second Quarter 2008; Groundwater Treatment System
Table 3.1	Thermal Oxidizer 1 Results for Method TO-15 (VOCs) – April 2008
Table 3.2	Thermal Oxidizer 1 Results for Method TO-15 (VOCs) – May 2008
Table 3.3	Thermal Oxidizer 1 Results for Method TO-15 (VOCs) – June 2008
Table 3.4	Thermal Oxidizer 2 Results for Method TO-15 (VOCs) – April 2008
Table 3.5	Thermal Oxidizer 2 Results for Method TO-15 (VOCs) – May 2008
Table 3.6	Thermal Oxidizer 2 Results for Method TO-15 (VOCs) – June 2008
Table 3.7	SBPA and Off-Site ISVE System Results for Method TO-15 (VOCs) – April 2008
Table 3.8	SBPA and Off-Site ISVE System Results for Method TO-15 (VOCs) – May 2008
Table 3.9	SBPA and Off-Site ISVE System Results for Method TO-15 (VOCs) – June 2008
Table 3.10	Thermal Oxidizer 1 Results for Method TO-13 (SVOCs) – April 2008
Table 3.11	Thermal Oxidizer 1 Results for Method TO-13 (SVOCs) – May 2008
Table 3.12	Thermal Oxidizer 1 Results for Method TO-13 (SVOCs) – June 2008
Table 3.13	Thermal Oxidizer 2 Results for Method TO-13 (SVOCs) – April 2008
Table 3.14	Thermal Oxidizer 2 Results for Method TO-13 (SVOCs) – May 2008
Table 3.15	Thermal Oxidizer 2 Results for Method TO-13 (SVOCs) – June 2008
Table 3.16	SBPA and Off-Site ISVE System Results for Method TO-13 (SVOCs) – April 2008
Table 3.17	SBPA and Off-Site ISVE System Results for Method TO-13 (SVOCs) – May 2008
Table 3.18	SBPA and Off-Site ISVE System Results for Method TO-13 (SVOCs) – June 2008
Table 3.19	Off-Site In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data – Second Quarter 2008
Table 3.20	Off-Site In-Situ Soil Vapor Extraction (ISVE) System Header Monitoring Data – Second Quarter 2008
Table 3.21	SBPA In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data – Second Quarter 2008
Table 3.22	SBPA In-Situ Soil Vapor Extraction (ISVE) System Header Monitoring Data – Second Quarter 2008
Table 6.1	Water Table Elevations Across the Barrier Wall and Near the PGCS – Second Quarter 2008
Table 6.2	Water Levels Inside Barrier Wall – Second Quarter 2008

## **FIGURES**

- Figure 3.1 VOC Removal Rate  
Figure 3.2 Total VOCs Removed  
Figure 6.1 Water Table Elevations Near the PGCS – June 2008  
Figure 6.2 Water Table Elevations Across the Barrier Wall – June 2008  
Figure 6.3 Groundwater Level Measuring Locations  
Figure 6.4 Water Level Trends Inside the Barrier Wall (Still Bottoms Pond Area)  
Figure 6.5 Water Level Trends Inside the Barrier Wall (Off-Site Area)

## **APPENDICES**

- Appendix A Effluent Analytical Data
  - April 11, 2008 Compliance Sample – Laboratory Results
  - May 27, 2008 Compliance Sample – Laboratory Results
  - June 27, 2008 Compliance Sample – Laboratory Results
- Appendix B Thermal Oxidizer Off-Gas Analytical Data
  - April 17, 2008 Off-Gas Sample Laboratory Results
  - May 15, 2008 Off-Gas Sample Laboratory Results
  - June 27, 2008 Off-Gas Sample Laboratory Results

## ACRONYMS AND ABBREVIATIONS

AS	Air Sparge
AMSL	Above Mean Sea Level
BOD	Biological Oxygen Demand
BW	Barrier Wall
BWES	Barrier Wall Extraction System
cfm	cubic feet per minute
DL	Detection Limit
DPE	Dual Phase Extraction
GAC	Granular Activated Carbon
Global	Global Technologies
GWTP	Groundwater Treatment Plant
"Hg	Inches of mercury
"H <sub>2</sub> O	Inches of water
IDEM	Indiana Department of Environmental Management
K-P	Kapica Pazmey
lb/hr	Pounds per hour
LDC	Laboratory Data Consultants
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
NC	Not Calculated
ND	Not Detected
NE	No Effluent Limit Established
NS	Not Sampled
OFCA	Off-Site Containment Area
PCBs	Polychlorinated Biphenyls
ppm	Parts per million
PGCS	Perimeter Groundwater Containment System
PSVP	Performance Standard Verification Plan
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
SBPA	Still Bottoms Pond Area
SVOC	Semi-Volatile Organic Compounds
T-102	Aeration Equalization Tank (Tank – 102)
TOC	Top of Casing
TOIC	Top of Inner Casing
TOSG	Top of Staff Gauge
TSS	Total Suspended Solids
µg	Micrograms
µg/L	Micrograms per liter
U.S. EPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds

## **1.0 INTRODUCTION**

MWH Americas, Inc. (MWH), on behalf of the American Chemical Service (ACS) Executive Committee, started up the on-site groundwater treatment system at the ACS National Priorities List (NPL) Site (ACS Site) in Griffith, Indiana on March 13, 1997. The groundwater treatment plant (GWTP) system was designed to treat groundwater from the Perimeter Groundwater Containment System (PGCS) and the Barrier Wall Extraction System (BWES). The original treatment consisted of a phase-separator for oil and free product removal, equalization tanks, an UV oxidation unit for destruction of organic constituents, and an air stripper to remove methylene chloride and other organics. The treatment also included a chemical precipitation and clarification unit to remove metals, a sand filter to remove suspended solids, and activated carbon vessels for final polishing of the treated groundwater before it was released to the west of the Site.

In 2001, an activated sludge treatment unit was added to the process to reduce the volatile and semivolatile organic compounds (VOCs and SVOCs) in the collected groundwater. The activated sludge treatment process also reduces the amount of activated carbon required to treat the water. An aerated equalization tank was also added to the GWTP in 2001 to remove VOCs from the collected groundwater, oxidize metals to increase metals removal efficiency in the chemical precipitation unit, and equalize groundwater flow through the GWTP. The activated sludge system and aeration tank have been fully integrated into the process along with the other upgrade components. Startup and optimization of the catalytic oxidizer/scrubber air treatment unit was also conducted during 2001.

The treated effluent from the treatment system is discharged to the nearby wetlands, west of the treatment system, in accordance with Agency approvals.

Operation of the In-situ Soil Vapor Extraction (ISVE) system for the Off-Site Containment Area (OFCA) and the Kapica-Pazmey (K-P) Area began on May 1, 2002. Operation of the ISVE system for the Still Bottoms Pond Area (SBPA) began in July 2003. The ISVE systems were designed to remove volatile and semi-volatile compounds from the subsurface media.

The Off-Site Area ISVE system consists of 42 ISVE wells, 3 air sparge wells, ISVE and air sparge blower systems, a thermal oxidizer/scrubber unit, and the associated mechanical and electrical components. Protocols and goals for the phased startup of the Off-Site System as defined in the Final Remedy (Montgomery Watson, 1999) were followed. In 2004, an additional blower unit was added to the Off-Site Area ISVE system to more effectively meet the design objectives of the system. The additional blower increased the capacity of the Off-Site ISVE system from 1,000 to 2,000 cubic feet per minute (cfm).

The SBPA ISVE system consists of 25 ISVE wells, 21 dual-phase extraction (DPE) wells, 6 air sparge wells, ISVE and air sparge blower systems, a thermal oxidizer/scrubber unit, and the associated mechanical and electrical components. During the first 12 months of system operation, the performance of the ISVE system was evaluated. Based on this evaluation, the

SBPA ISVE system was enhanced in accordance with the United States Environmental Protection Agency (U.S. EPA) and Indiana Department of Environmental Management (IDEM) approval by reconfiguring 18 of the ISVE wells to allow injection of air. Air for the injection wells is directed from blower ME-102/103 at the GWTP to the SBPA ISVE blower shed. The air injection system, which consists of three groups of five injection wells, began operation in December 2005. The air injection is rotated among the three well groups on a monthly basis. Only one well group is operated at a time.

This report summarizes GWTP effluent analytical data and thermal oxidizer off-gas analytical data, ISVE process monitoring data, and water level gauging data collected from April 2008 through June 2008. The report also details modifications and upgrades that were made to the active treatment systems during the reporting period.

## 2.0 GWTP COMPLIANCE MONITORING

### 2.1 SAMPLING REQUIREMENTS

Effluent samples are collected on a regular schedule from the treatment system to demonstrate compliance with the discharge limits (**Table 2.1**) established by the Indiana Department of Environmental Management (IDEM) and the United States Environmental Protection Agency (U.S. EPA). The approved Performance Standard Verification Plan for the PGCS (PSVP) (Montgomery Watson, July 1997) requires quarterly effluent sampling for biochemical oxygen demand (BOD), total suspended solids (TSS), SVOCs, metals, and polychlorinated biphenyls (PCBs) in the system, and monthly effluent sampling for pH and VOCs, as tabulated below. In accordance with the PSVP, a full analysis effluent compliance sample was collected during April 2008 and analyzed for all of the analytes listed above. During May and June 2008, the monthly effluent compliance samples were analyzed for VOCs and pH only.

Sampling and analyses were performed in accordance with the approved Quality Assurance Project Plan (QAPP) (Montgomery Watson Harza, November 2001) during the reporting period. Quality control measures were also instituted in accordance with the PSVP. The following table and paragraphs present details on sampling and analyses and also summarize the analytical data for the treatment system effluent.

**Sampling Frequency Schedule – Groundwater Treatment System**

Analytes	Cumulative Time From Startup*	Frequency
Flowrate	–	Continuous
BOD, TSS, SVOCs and Metals	181 days onward	Once per quarter
VOCs and pH	31 days onward	Once per month
PCBs	181 days onward	Once per quarter
PCBs in Sediment (one location)	–	Once per year

\*Note: System operation began on March 13, 1997

### 2.2 EFFLUENT SAMPLING AND ANALYSES

Effluent samples were collected each month during the second quarter of 2008. Samples were collected on the following dates and analyzed for the listed analytes for this reporting period:

April 11, 2008	Full analysis (pH, TSS, BOD, Metals, VOCs, SVOCs, pentachlorophenol, and PCBs)
May 27, 2008	pH and VOCs
June 27, 2008	pH and VOCs

The above samples were collected directly from a sampling port on the effluent line of the treatment system. The samples were placed in contaminant-free containers, in accordance with the U.S. EPA Specifications and Guidance for Obtaining Contaminant-Free Sample Containers (U.S. EPA, 1992). Appropriate sample containers and preservatives, as specified in the QAPP, were used to collect and preserve the samples. Following sample collection, the temperature of the sample containers was maintained at or below 4° C in coolers. Chain-of-Custody forms were prepared to track the transfer of samples from the treatment system to the laboratories. In accordance with the approved QAPP, the effluent water samples were analyzed for the following parameters by the following analytical methods:

<u>Parameter</u>	<u>Analytical Method</u>
VOCs	SW-846 8260B
SVOCs	SW-846 8270C
Pentachlorophenol	SW-846 8270C and SIM
Pesticides/PCBs	EPA 608/SW-846 8081/8082
Metals (Excluding Mercury)	
General Water Quality	SW-846 6010
Parameters (TSS and BOD-5)	EPA 160.2 and 405.1
Mercury	SW-846 7470
pH	EPA 150.1

## 2.3 EFFLUENT ANALYTICAL RESULTS

### 2.3.1 GWTP Effluent Samples

The GWTP effluent monitoring data, summarized in [Table 2.2](#), verify that the system effluent was compliant with the discharge limits summarized in [Table 2.1](#). No effluent exceedances were reported in the April, May, or June samples.

Microbac Laboratory of Merrillville, Indiana performed the analysis of the samples. Laboratory Data Consultants (LDC) of Carlsbad, California performed third party data validation in accordance with the U.S. EPA National Functional Guidelines for Organic/Inorganic Data Review (U.S. EPA, February 1994 and October 1999). Validation qualifiers are listed in [Table 2.2](#) and are written in the margin of the analytical data sheets provided in [Appendix A](#).

## **3.0 ISVE SYSTEM MONITORING**

### **3.1 THERMAL OXIDIZER OFF-GAS SAMPLING**

During the second quarter of 2008, Thermal Oxidizer/Scrubber Unit 1 (Therm Ox 1) was used to treat vapors from the SBPA ISVE system and Thermal Oxidizer/Scrubber Unit 2 (Therm Ox 2) was used to treat vapors from the Off-Site ISVE system and T-102. Monthly VOC removal rates are illustrated in **Figure 3.1** and the total VOCs removed are shown on **Figure 3.2**. Compliance samples were collected from the thermal oxidizer/scrubber units on April 17th, May 15th, and June 27th. Samples could not be collected from Therm Ox 2 during the May sampling event because the unit was not operational.

Influent and effluent off-gas samples were collected directly from sampling ports on the influent pipe to the thermal oxidizer and the discharge stack of the scrubber. One influent sample and one effluent sample were collected. A duplicate influent sample was also collected. The samples were collected to comply with the PSVP and QAPP and in accordance with laboratory guidelines. The VOC samples were collected using a Summa canister and the SVOC samples were collected in sorbent tubes.

#### **Sampling Frequency Schedule – ISVE System**

Startup	Weekly for a four week period
Post-Startup	Monthly in accordance with the IDEM Air Permit Equivalency

Following sample collection, the sorbent tubes were placed in coolers and maintained at or below 4°C for shipment. Chain-of-Custody forms were prepared to track the transfer of samples from the treatment plant to the laboratories for extraction and analysis. In accordance with the approved QAPP and addenda, the off-gas samples were analyzed by the following analytical methods:

<b><u>Parameter</u></b>	<b><u>Analytical Method</u></b>
VOCs	TO-15
SVOCs	TO-13

Per Addendum No. 1 to the QAPP, Microbac Laboratory of Merrillville, Indiana is now the primary analytical laboratory for air analyses for the project. Microbac performs VOC analysis by Method TO-15.

### **3.2 SAMPLING RESULTS**

The influent and effluent off-gas data are collected to verify that the off-gas from both of the thermal oxidizers were less than the IDEM discharge limit of three pounds of VOCs per hour (lbs/hr) and 15 pounds per day (lbs/day) for April, May, and June. The highest VOC discharge rate observed during these sampling events was the June 27, 2008 Therm Ox 2 sample, which was measured at 0.249 pounds per hour or 5.98 pounds per day. Both of

these rates are below the corresponding discharge limits. Therefore, it can be concluded that the ISVE systems are performing well within discharge limits for air emissions. VOC discharge values for Therm Ox 1, Therm Ox 2, and the SBPA and Off-Site ISVE system are presented in **Tables 3.1 through 3.9**. The analytical data sheets for the compliance samples are provided in **Appendix B**.

In addition to the off-gas data collected during the second quarter, MWH collected off-gas samples from the Off-Site ISVE system and the SBPA ISVE system influent lines. These samples were collected in order to comply with the PSVP. Samples were not collected from the Off-Site ISVE system during May 2008 because Therm Ox 2 was not operational.

Microbac Laboratory of Merrillville, Indiana analyzed all of the vapor samples. The analytical results are summarized in **Tables 3.1 through 3.18**. Laboratory Data Consultants (LDC) of Carlsbad, California performed third party data validation in accordance with the QAPP and the National Functional Guidelines for Organic/Inorganic Data Review. Validation qualifiers are listed in the tables and are written in the margin of the analytical data sheets provided in **Appendix B**.

### **3.3 ISVE SYSTEM MONITORING**

Performance monitoring of the ISVE system was conducted in accordance with the PSVP (Montgomery Watson, June 1999). Extracted vapor flow rates and vacuum pressures at individual ISVE wells and headers were measured and recorded on a routine basis. Additionally, VOC concentrations were measured at individual wells and headers using a photoionization detector (PID). ISVE system monitoring could not be conducted in May 2008 as a result of both ISVE systems being temporarily down for maintenance on the thermal oxidizers.

The information collected during performance monitoring is used to evaluate and optimize the ISVE system. Data collected from the Off-Site ISVE system during the second quarter of 2008 are presented in **Tables 3.19** and **3.20**. Data that were collected from the SBPA ISVE system during the second quarter of 2008 are presented in **Tables 3.21** and **3.22**.

### **3.4 PRODUCT REMOVAL ACTIVITIES**

Independent Environmental Services was at the Site in June to perform product removal activities at the target wells in the SBPA and Off-Site Area. A diaphragm pump was used to transfer free product to a portable tank. After removal, the free product was stored at the GWTP in Tank 6. The vapors that volatilized from the free product were sent to the thermal oxidizer units where they were destroyed. The residual free product will be disposed of off-site with the rest of the hazardous solid waste stream.

## **4.0 GWTP PROCESS MODIFICATIONS AND REPAIRS**

### **4.1 GWTP PROCESS MODIFICATIONS**

No modifications were made to the GWTP during the second quarter of 2008.

### **4.2 GWTP REPAIRS AND MAINTENANCE**

The following maintenance activities were conducted at the GWTP during the second quarter of 2008:

- A change-out of the carbon from the Granular Activated Carbon (GAC) vessels was conducted on May 20, 2008.
- Annual maintenance was performed on the PGCS pumps and the DPE pumps between May 19, 2008 and June 23, 2008.

## **5.0 ISVE PROCESS MODIFICATIONS AND REPAIRS**

### **5.1 ISVE PROCESS MODIFICATIONS**

The following modifications were made to the SBPA ISVE system during the second quarter of 2008:

- Due to periods of downtime of the SBPA ISVE system, only two sets of air injection wells ran at the ACS site throughout the second quarter 2008. On March 27, 2008 MWH was on site to switch the air injection wells from Group 2 (SVE-49 and SVE-51) to Group 3 (SVE-44, SVE-59, SVE-77, SVE- 80, and SVE-84). Group 3 operated until June 25, 2008 when MWH switched over to Group 1 (SVE-50, SVE-54, SVE-73, and SVE-81).
- MWH will continue to rotate among the three groups of air injection wells on a monthly basis.

The following modifications were made to the Off-Site ISVE system during the second quarter of 2008:

- MWH is currently evaluating the Off-Site Area ISVE system to determine if it would be advantageous to shut down one of the extraction blowers. A test was conducted in February to determine if operating the second blower provided any incremental benefit in terms of VOC mass removal. A select number of ISVE wells with historically high VOC levels were activated. Analytical samples were collected, and the VOC mass removal rate was determined to be similar to the rate achieved with two blowers. In June, MWH activated all 42 ISVE wells in the Off-Site Area. MWH will conduct further testing in the near future by operating one blower with a larger number of active ISVE wells.

### **5.2 ISVE REPAIRS AND MAINTENANCE**

- Thermal Oxidizer 2 went down on May 5, 2008 due to a broken impeller in the main blower. Replacement parts were ordered, and during the downtime, MWH performed routine maintenance on the unit. Therm Ox 2 returned to normal operation on June 24, 2008.
- Therm Ox 2 continued to shut down occasionally during the second quarter of 2008 due to high temperatures in the scrubber unit. The main cause of the problem was scaling in the scrubber tower due to the makeup water characteristics. To address the issue, MWH has been working on the nanofiltration unit which provides the feed water to the scrubbers. The vendor who supplied the unit, GE Water, has been brought to the Site to evaluate the unit and to sample the water supplied to the unit. In order to increase the removal of solids, the nanofiltration unit has been

modified. These modifications include replacing the two 50 micron cartridge filters with a 10 micron bag filter, a 5 micron cartridge, and a 1 micron cartridge filter. The nanofiltration system was restarted on June 14, 2008.

- The blower motor for the SBPA ISVE system malfunctioned after running for too long at elevated amperages. The blower motor was replaced and is now functioning properly. Operational parameters of the ISVE system will be modified (lower vacuum) to allow the motor to run at lower amps.
- Independent Environmental Services was at the Site in June to power wash and vacuum liquid out of ISVE wells with obstructed screens. This was done to improve the efficiency of the ISVE systems and increase VOC removal rates.

## 6.0 PGCS AND BWES GAUGING ACTIVITIES

During the operational time frame of the GWTP in the second quarter of 2008, the PGCS groundwater extraction trenches were operated in “auto” mode. In “auto” mode, the PGCS extraction wells pump continuously unless there is a low water level in individual extraction wells or a high water level in the Aeration Equalization Tank (T-102). This mode is used to control the flowrate through the treatment system, while at the same time creating an inward gradient along the PGCS trench. The GWTP also received influent from the On-Site and Off-Site components of the BWES, the SBPA DPE wells, MW-10C, MW-56, and the Lower Aquifer Pumping System during the second quarter of 2008.

In accordance with the PSVP, a discussion on the effect of the PGCS and BWES on the water table near the Site is presented in each quarterly monitoring report. This section summarizes the groundwater elevations at the Site during April, May, and June 2008. Groundwater elevation measurements were collected throughout the Site on June 6, 2008 as part of the groundwater monitoring program. The groundwater elevations are listed in **Table 6.1** and the resulting water table contours outside the barrier wall are shown on **Figure 6.1**.

The barrier wall was constructed to contain the contaminated zone under the Site and the BWES was installed to extract groundwater from within the barrier wall and dewater the Site for the ISVE system. Nine pairs of piezometers were installed, with one piezometer of each pair on either side of the barrier wall, spaced along the barrier wall alignment. This allows measurement and tracking of water levels in order to document that the barrier wall is serving its designed function.

**Table 6.1**, BWES Water Level and Piezometer Pairs, presents the groundwater elevations inside and outside the barrier wall on June 6, 2008. The groundwater elevations are plotted on **Figure 6.2**. The groundwater elevation measurements inside the barrier wall range from 3.32 feet to 10.73 feet lower than levels outside the barrier wall. In general, the data demonstrates that the barrier wall is successfully performing the intended function of isolating and protecting the groundwater outside the barrier wall from the source areas of the Site inside the barrier wall. MWH will continue to collect water level measurements quarterly across the Site as required in the PSVP.

As part of the optimization of the GWTP and BWES upgrades, MWH began active dewatering of the Off-Site Area through increased groundwater pumping rates on September 25, 2001. Active dewatering of the SBPA (On-Site Area) began on February 11, 2003 with the addition of the DPE wells. Water levels were measured throughout the quarter at piezometer locations (P29, P31, P32, P36, and P49) in the On-Site Area and at piezometers (P96, P110, P112, P113, P114, P116, P118) and three air sparge (AS) wells (AS-7, AS-8, and AS-9) in the Off-Site Area. These locations are shown on **Figure 6.3**. The water level trend data from these piezometers and AS wells for the second quarter of 2008 are depicted graphically on **Figures 6.4** and **6.5**, which also show the target water elevations for each area. In the SBPA, the target water level is 629 feet amsl. Water

levels in three piezometer locations (P-29, P-31, and P-49) have been drawn down to below the bottom of the screens in these wells throughout the second quarter of 2008. Therefore, the depth to water measurements at these locations show straight-line measurements of the bottom of the wells. The other two locations had water levels that varied from approximately 625 feet amsl to 631 feet amsl. These water levels represent a decreasing trend from the first quarter of 2008.

In the Off-Site ISVE area, the target water level is 626 feet amsl. Actual water levels varied from approximately 621 feet amsl to 628 feet amsl. This represents a stable trend in the average water levels from the first quarter of 2008. MWH will continue to monitor the water levels in both the SBPA and Off-Site Area to ensure vapor extraction at the ISVE wells is not inhibited.

## **7.0 SYSTEM OPERATION**

The GWTP operated as designed 98 percent of the second quarter of 2008 (based on 2,132 hours of operation out of a total of 2,184 hours). The system drew influent water from the On-Site Area BWES, the Off-Site Area BWES, the PGCS, MW-10C, MW-56, and the Lower Aquifer Pumping System.

The Off-Site Area ISVE system continued to operate as designed 27 percent of the second quarter of 2008 (based on 589 hours of operation out of a total of 2,184 hours). The SBPA ISVE system continued to operate as designed 25 percent of the second quarter of 2008 (based on 547 hours of operation out of a total of 2,184 hours). A majority of the downtime for the ISVE systems was associated with maintenance and repairs of the thermal oxidizers.

## **8.0 CONCLUSIONS AND RECOMMENDATIONS**

This section provides a summary of the operational status of the active remedial systems at the ACS NPL site for the subject period. Anticipated activities for the upcoming quarter and recommendations for system modifications are also provided.

### **8.1 GWTP OPERATION**

The GWTP continued to operate normally during the second quarter of 2008. No significant modifications were made to the system during the period. MWH continues to perform routine maintenance activities to ensure that the operation of the GWTP is sustained. During the second quarter, maintenance consisted of performing a change-out of the carbon from the GAC vessels on May 20, 2008 and performing annual maintenance on the PGCS and DPE pumps between May 19, 2008 and June 23, 2008.

The GWTP continued to treat water from all available sources. The list of sources was expanded in September 2007 with the completion of the Lower Aquifer Pumping System and the replacement of the pump in MW-10C.

### **8.2 ISVE OPERATION**

The ISVE systems continued to operate normally during the second quarter of 2008. As shown in [Figure 3.1](#), the VOC removal rates (in pounds per day) were observed to be within the range previously recorded. The operational times of both the systems were decreased primarily due to maintenance issues associated with the thermal oxidizers. MWH will continue to perform O&M services on these units to ensure adequate operational time for the ISVE systems.

MWH is currently evaluating the Off-Site Area ISVE system to determine if it would be advantageous to shut down one of the extraction blowers. A test was conducted in February to determine if operating the second blower provided any incremental benefit in terms of VOC mass removal. A select number of ISVE wells with historically high VOC levels were activated. Analytical samples were collected and the VOC mass removal rate was determined to be similar to the rate achieved with two blowers. In June, MWH activated all 42 ISVE wells in the Off-Site Area. MWH will conduct further testing in the near future by operating one blower with a larger number of active ISVE wells.

### **8.3 GROUNDWATER LEVEL MONITORING**

As indicated in Section 6.0, the groundwater extraction system continues to successfully perform its intended function of isolating and protecting the groundwater outside the barrier wall from the source areas of the Site inside the barrier walls.

Groundwater level monitoring results during the third quarter of 2007 indicated that groundwater levels in both the On-Site and Off-Site Areas had risen above previous minimum levels. MWH evaluated the performance of the extraction trenches and wells to ensure correct operation. An evaluation of the condition of the extraction pumps in the Off-Site Area determined that some of the pumps warranted replacement. Ten of the pumps' motors had malfunctioned and were replaced. Also, the annual maintenance event for the SBPA dual-phase extraction pumps was performed during the third quarter of 2007. Seven of the pumps were extensively cleaned and repaired and two of the pumps were replaced. As a result, groundwater levels have shown a decreasing trend since the fourth quarter of 2007. During the second quarter of 2008, MWH conducted the annual maintenance event for the SBPA dual-phase extraction pumps. Water levels continue to show a decreasing trend in both the SBPA and Off-Site Area. Off-Site average water levels are only slightly above the target water level and SBPA average water levels are below the target water level.

#### **8.4 HEALTH AND SAFETY**

No health and safety incidents were reported during the second quarter of 2008. MWH continues to perform site activities in accordance with the site Health and Safety Plan and all applicable addendums.

Health and Safety statistics for the ACS Site as of June 30, 2008 are:

- 4,055 consecutive days with no lost time due to an accident or Health and Safety incident.
- 1,747 consecutive days without an incident requiring first aid.

## **9.0 REFERENCES**

1. *Final Remedial Design Report: Final Remedy, ACS NPL Site*, Montgomery Watson, August 1999.
2. *Performance Standard Verification Plan, ACS NPL Site*, Montgomery Watson, July 1997.
3. *Performance Standard Verification Plan, ACS NPL Site*, Montgomery Watson, June 1999.
4. *Phase I Technical Memorandum Wetland Investigation, ACS NPL Site*, Montgomery Watson, July 1996.
5. *Phase II Technical Memorandum Wetland Investigation, ACS NPL Site*, Montgomery Watson, February 1997.
6. *Quality Assurance Project Plan, ACS NPL Site*, Montgomery Harza, March 2001.
7. *U.S. EPA Specifications and Guidance for Obtaining Contaminant-Free Sample Containers*, United States Environmental Protection Agency, 1992.
8. *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, U.S. EPA, February 1994.
9. *Contract Laboratory Program National Functional Guidelines for Organic Data Review*, U.S. EPA, October 1999.

JEF/CAD/PJV/app  
J:\405\0577 ACS\0201 Engr\05770201a140c.doc

## **TABLES**

**Table 2.1**  
**Groundwater Treatment System Effluent Discharge Limits**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Groundwater Quality Parameter	Effluent Standard (Limit)
<b>General Water Quality Parameters</b>	
pH	6 - 9 S.U.
BOD-5	30 mg/L
TSS	30 mg/L
<b>Inorganics</b>	
Arsenic	50 µg/L
Beryllium	NE
Cadmium	4.1 µg/L
Manganese	NE
Mercury <sup>1</sup>	0.02 µg/L (w/DL = 0.64)
Selenium	8.2 µg/L
Thallium	NE
Zinc	411 µg/L
<b>Volatile Organics</b>	
Acetone	6,800 µg/L
Benzene	5 µg/L
2-Butanone	210 µg/L
Chloromethane	NE
1,4 – Dichlorobenzene	NE
1,1 – Dichloroethane	NE
1,2 – Dichloroethene – cis	70 µg/L
Ethylbenzene	34 µg/L
Methylene chloride	5 µg/L
Tetrachloroethene	5 µg/L
Trichloroethene	5 µg/L
Vinyl chloride	2 µg/L
4 – Methyl - 2 – pentanone	15 µg/L
<b>Semi-Volatile Organics</b>	
bis(2 – Chloroethyl) ether	9.6 µg/L
bis(2 – Ethylhexyl) phthalate	6 µg/L
Isophorone	50 µg/L
4 – Methylphenol	34 µg/L
Pentachlorophenol	1 µg/L
<b>PCBs</b>	
PCBs <sup>1</sup>	0.00056 µg/L (w/DL = 0.1 to 0.9)

**Notes:**

1. Effluent standards for the Groundwater Treatment Plant were established based on maximum contaminant levels, Indiana water quality effluent limits, or best available treatment technologies. However, laboratory equipment could not read down to the effluent standards for mercury or PCBs. Therefore, the lowest equipment detection limit (or limit range for PCBs) for these compounds were established as their respective effluent standards.

NE = No effluent limit established.

DL = Detection limit

S.U. = Standard pH units

µg/L - micrograms per Liter

**Table 2.2**  
**Summary of Effluent Analytical Results - Second Quarter 2008**  
**Groundwater Treatment System**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Event Date	Month 131 4/11/2008	Month 132 5/27/2008	Month 133 6/27/2008	Effluent Limits	Lab Reporting Limits
pH	7.16 H/	6.70 H/	7.37 H/J	6-9	none
TSS	1.0 U/	NS	NS	30	1.0
BOD	2.0 U/	NS	NS	30	2
Arsenic	10 U/	NS	NS	50	10
Beryllium	1.0 U/	NS	NS	NE	1.0
Cadmium	2.0 U/	NS	NS	4.1	2.0
Manganese	87 /B	NS	NS	NE	2.0
Mercury <sup>1</sup>	0.2 U/	NS	NS	0.02 (w/DL = 0.64)	0.2
Selenium	7.7 J/UB	NS	NS	8.2	30
Thallium	50 U/	NS	NS	NE	50
Zinc	20 U/	NS	NS	411	20
Benzene	1.0 U/	1.0 U/	1.0 U/	5	1.0
Acetone	2.9 J/5.0 UBJ	5.0 U/UJ	2.1 Jb/UBJ	6,800	5.0
2-Butanone	2.0 U/UJ	2.0 U/UJ	2.0 U/UJ	210	2.0
Chloromethane	2.0 U/	2.0 U/	0.54 J/	NE	2.0
1,4-Dichlorobenzene	1.0 U/	1.0 U/	1.0 U/	NE	1.0
1,1-Dichloroethane	1.4 /	1.0 U/	1.0 U/	NE	1.0
cis-1,2-Dichloroethene	3.5 /	1.0 U/	1.0 U/	70	1.0
Ethylbenzene	1.0 U/	1.0 U/	1.0 U/	34	1.0
Methylene chloride	2.0 U/	2.0 U/	2.0 U/	5	2.0
Tetrachloroethene	1.0 U/	1.0 U/	1.0 U/	5	1.0
Trichloroethene	1.0 U/	1.0 U/	1.0 U/	5	1.0
Vinyl chloride	0.41 J/	2.0 U/	2.0 U/	2	2.0
4-Methyl-2-pentanone	1.2 /	1.0 U/	1.0 U/	15	1.0
bis (2-Chloroethyl) ether	5.0 U/	NS	NS	9.6	5.0
bis(2-Ethylhexyl) - phthalate	0.65 J/	NS	NS	6	5.0
4 - Methylphenol	5.0 U/	NS	NS	34	5.0
Isophorone	5.0 U/	NS	NS	50	5.0
Pentachlorophenol	25 U/	NS	NS	1	25
PCB/Aroclor-1016 <sup>1</sup>	ND	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.53
PCB/Aroclor-1221 <sup>1</sup>	ND	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.53
PCB/Aroclor-1232 <sup>1</sup>	ND	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.53
PCB/Aroclor-1242 <sup>1</sup>	ND	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.53
PCB/Aroclor-1248 <sup>1</sup>	ND	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.53
PCB/Aroclor-1254 <sup>1</sup>	ND	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.53
PCB/Aroclor-1260 <sup>1</sup>	ND	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.53

**Notes:**

Bolded result indicates a exceedence of the discharge limit  
pH data is expressed in S.U.

BOD and TSS data is expressed in mg/L

Metals, VOC, SVOC and PCB data is expressed in ug/L

1. Effluent standards for the Groundwater Treatment Plant were established based on maximum contaminant levels, Indiana water quality effluent limits, or best available treatment technologies. However, laboratory equipment could not read down to the effluent standards for mercury or PCBs. Therefore, the lowest equipment detection limit (or limit range for PCBs) for these compounds were established as their respective effluent standards.

ND = Not detected

NS = This analyte was not sampled or analyzed for

NE = No effluent limit established.

DL = Detection limit

**Suffix Definitions:**

\_/\_ = Data qualifier added by laboratory

/\_/\_ = Data qualifier added by data validator

J = Result is detected below the reporting limit and is an estimated concentration

U = Analyte is not detected at or above the indicated concentration

B = Compound is also detected in the blank

UJ = Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value, however the calibration was out of range. Therefore the concentration is estimated.

H = Analyte was prepared and/or analyzed outside of the analytical method holding time

UB = Compound or analyte is not detected at or above the indicated concentration due to blank contamination.

UBJ = Analyte is not detected at or above the indicated concentration due to blank contamination, however the calibration was out of range. Therefore the concentration is estimated.

**Table 3.1**  
**Thermal Oxidizer 1 Results for Method TO-15 (VOCs) - April 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 4/17/08						
		Therm-Ox 1			Effluent		Low	High
Influent	Influent Dup	Effluent	Low	High	Average			
1,1,1-Trichloroethane	ppbv	4,100		4,500	410	90.00%	90.89%	90.44%
1,1,2,2-Tetrachloroethane	ppbv	ND	U/	ND	U/	NC	NC	NC
1,1,2-Trichloroethane	ppbv	ND	U/	ND	U/	0.4	J/	NC
1,1-Dichloroethane	ppbv	940		16	7.9	50.63%	99.16%	74.89%
1,1-Dichloroethene	ppbv	83		1.2	11.0	NC	NC	NC
1,2-Dichloroethane	ppbv	110		1.7	1.4	17.65%	98.73%	58.19%
1,2-Dichloropropane	ppbv	82		1.3	0.43	J/	NC	NC
2-Butanone (Methyl Ethyl Ketone)	ppbv	ND	U/	ND	310	/B	NC	NC
2-Hexanone	ppbv	ND	U/	1.4	J/	2.5	NC	NC
4-Methyl-2-pentanone	ppbv	370		5.0		19	NC	NC
Acetone	ppbv	200	/UB	3.0	b/UB	380	/UB	NC
Benzene	ppbv	570	/B	8.6	b/B	19	b/B	NC
Bromodichloromethane	ppbv	ND	U/	ND	U/	ND	NC	NC
Bromoform	ppbv	ND	U/	ND	U/	ND	U/	NC
Bromomethane	ppbv	ND	U/	ND	U/	ND	U/	NC
Carbon Disulfide	ppbv	2,900	/B	16	b/B	0.57	Jb/UB	NC
Carbon Tetrachloride	ppbv	ND	U/	ND	U/	ND	U/	NC
Chlorobenzene	ppbv	16	J/	ND	U/	0.27	J/	NC
Chloroethane	ppbv	390		7		0.61	91.16%	99.84%
Chloroform	ppbv	1,100		18		5.4	70.00%	99.51%
Chloromethane	ppbv	ND	U/	ND	U/	ND	U/	NC
cis-1,2-Dichloroethene	ppbv	5,500		5,700		13	99.76%	99.77%
cis-1,3-Dichloropropene	ppbv	ND	U/	ND	U/	ND	U/	NC
Dibromochloromethane	ppbv	ND	U/	ND	U/	ND	U/	NC
Ethyl Benzene	ppbv	1,500		1,900		260	82.67%	86.32%
m,p-Xylene	ppbv	5,800		6,900		950	83.62%	86.23%
Methylene Chloride	ppbv	1,600	/UB	19	b/B	520	/B	NC
o-Xylene	ppbv	3,000		3,600		380	87.33%	89.44%
Styrene	ppbv	ND	U/	ND	U/	5.2	NC	NC
Tetrachloroethene	ppbv	4,600		5,300		490	89.35%	90.75%
Toluene	ppbv	4,400	/B	4,900	/B	130	/UB	NC
trans-1,2-Dichloroethene	ppbv	63		1.0		4.2	NC	NC
trans-1,3-Dichloropropene	ppbv	ND	U/	ND	U/	ND	U/	NC
Trichloroethene	ppbv	2,700		3,000		340	87.41%	88.67%
Vinyl Chloride	ppbv	1,000		18		0.25	J/	NC
<b>Total</b>	<b>ppbv</b>	<b>41,024</b>		<b>35,917</b>		<b>4,261.1</b>	<b>88.14%</b>	<b>89.61%</b>
<b>Total</b>	<b>lb/hr</b>	<b>0.601</b>		<b>0.563</b>		<b>0.061</b>	<b>89.17%</b>	<b>89.85%</b>
								<b>89.51%</b>

**Notes:**

NC - Not calculated  
 ND - Non-detect  
 ppbv - Parts per billion volume  
 lb/hr - Pounds per hour

**Qualifiers:**

U - Below reported quantitation limit  
 J - Result is estimated  
 b - Detected in the associated Method Blank at a concentration above the Method Detection Limit but less than the routine Reporting Limit.  
 Jb - Detected in the associated Method Blank at a concentration between the Reporting Limit and Method Detection Limit  
 B - Compound or analyte was positively detected in sample and in associated blank.  
 UB - Compound or analyte is not detected at or above the indicated concentration due to blank contamination.  
 J/ - Laboratory data qualifier  
 /\_ - Data validation qualifier

Destruction efficiencies were not calculated if either the influent or effluent samples were estimated.

Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

Total destruction efficiencies that include the estimated results of any individual compound will be considered an estimated value.

System	Date	Temp (F)	Flow (scfm)
Therm-Ox 1	04/17/08	84	846

Temperatures and flow rates reported correspond to instantaneous readings.

**Table 3.2**  
**Thermal Oxidizer 1 Results for Method TO-15 (VOCs) - May 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 5/15/08						
		Therm-Ox 1			Destruction Efficiency			
		Influent	Influent Dup	Effluent	Low	High	Average	
1,1,1-Trichloroethane	ppbv	3,500		NS	320		NC	NC
1,1,2,2-Tetrachloroethane	ppbv	16	J/	NS	0.3	J/	NC	NC
1,1,2-Trichloroethane	ppbv	ND	U/	NS	0.72		NC	NC
1,1-Dichloroethane	ppbv	830		NS	44		NC	NC
1,1-Dichloroethene	ppbv	63		NS	2.9		NC	NC
1,2-Dichloroethane	ppbv	62		NS	2.9		NC	NC
1,2-Dichloropropane	ppbv	80		NS	3.8		NC	NC
2-Butanone (Methyl Ethyl Ketone)	ppbv	150	/UB	NS	6.3	b/B	NC	NC
2-Hexanone	ppbv	78	J/	NS	3.5		NC	NC
4-Methyl-2-pentanone	ppbv	970		NS	14		NC	NC
Acetone	ppbv	190	/UB	NS	13	b/B	NC	NC
Benzene	ppbv	690		NS	45		NC	NC
Bromodichloromethane	ppbv	28	J/	NS	1		NC	NC
Bromoform	ppbv	ND	U/	NS	ND	U/	NC	NC
Bromomethane	ppbv	ND	U/	NS	ND	U/	NC	NC
Carbon Disulfide	ppbv	1,300		NS	ND	U/	NC	NC
Carbon Tetrachloride	ppbv	ND	U/	NS	ND	U/	NC	NC
Chlorobenzene	ppbv	74		NS	3.6		NC	NC
Chloroethane	ppbv	360		NS	0.70		NC	NC
Chloroform	ppbv	950		NS	47		NC	NC
Chloromethane	ppbv	ND	U/	NS	1	J/	NC	NC
cis-1,2-Dichloroethene	ppbv	18,000		NS	820		NC	NC
cis-1,3-Dichloropropene	ppbv	ND	U/	NS	ND	U/	NC	NC
Dibromochloromethane	ppbv	ND	U/	NS	ND	U/	NC	NC
Ethyl Benzene	ppbv	1,400		NS	71		NC	NC
m,p-Xylene	ppbv	6,000		NS	470		NC	NC
Methylene Chloride	ppbv	700		NS	14		NC	NC
o-Xylene	ppbv	3,200		NS	240		NC	NC
Styrene	ppbv	47		NS	3.7		NC	NC
Tetrachloroethene	ppbv	15,000		NS	610		NC	NC
Toluene	ppbv	5,100		NS	460		NC	NC
trans-1,2-Dichloroethene	ppbv	65		NS	7.1		NC	NC
trans-1,3-Dichloropropene	ppbv	ND	U/	NS	ND	U/	NC	NC
Trichloroethene	ppbv	3,100		NS	290		NC	NC
Vinyl Chloride	ppbv	1,800		NS	91		NC	NC
<b>Total</b>	<b>ppbv</b>	<b>63,753</b>		<b>0</b>	<b>3,586.7</b>		<b>NC</b>	<b>NC</b>
<b>Total</b>	<b>lb/hr</b>	<b>1.092</b>		<b>NC</b>	<b>0.061</b>		<b>NC</b>	<b>NC</b>

**Notes:**

NC - Not calculated  
 ND - Non-detect  
 NS - Not sampled  
 ppbv - Parts per billion volume  
 lb/hr - Pounds per hour

The influent duplicate sample was not analyzed because the sample was compromised. As a result, destruction efficiencies were not calculated.

**Qualifiers:**

U - Below reported quantitation limit  
 J - Result is estimated  
 b - Detected in the associated Method Blank at a concentration above the Method Detection Limit but less than the routine Reporting Limit.  
 B - Compound or analyte was positively detected in a sample and in an associated blank.  
 UB - Compound or analyte is not detected at or above the indicated concentration due to blank contamination.  
 J/ - Laboratory data qualifier  
 U/ - Data validation qualifier

System	Date	Temp (F)	Flow (scfm)
Therm-Ox 1	05/15/08	83	930

Temperatures and flow rates reported correspond to instantaneous readings.

**Table 3.3**  
**Thermal Oxidizer 1 Results for Method TO-15 (VOCs) - June 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 6/27/08						
		Therm-Ox 1			Destruction Efficiency			
Influent	Influent Dup	Effluent	Low	High	Average			
1,1,1-Trichloroethane	ppbv	14,000		16,000		30	99.79%	99.81% 99.80%
1,1,2,2-Tetrachloroethane	ppbv	ND	U/	17	J/	ND	U/	NC NC NC
1,1,2-Trichloroethane	ppbv	25	J/	ND	U/	0.25	J/	NC NC NC
1,1-Dichloroethane	ppbv	2,400		2,500		8.2	99.66%	99.67% 99.67%
1,1-Dichloroethene	ppbv	130		130		32	75.38%	75.38% 75.38%
1,2-Dichloroethane	ppbv	150		200		1.2	99.20%	99.40% 99.30%
1,2-Dichloropropane	ppbv	130		140		0.32	J/	NC NC NC
2-Butanone (Methyl Ethyl Ketone)	ppbv	ND	U/	ND	U/	12	NC	NC NC
2-Hexanone	ppbv	ND	U/	ND	U/	1.3	J/	NC NC NC
4-Methyl-2-pentanone	ppbv	380		330		6.9	97.91%	98.18% 98.05%
Acetone	ppbv	380	/UB	340	/UB	28	/UB	NC NC NC
Benzene	ppbv	1,500		1700		27	98.20%	98.41% 98.31%
Bromodichloromethane	ppbv	ND	U/	ND	U/	ND	U/	NC NC NC
Bromoform	ppbv	ND	U/	ND	U/	ND	U/	NC NC NC
Bromomethane	ppbv	ND	U/	ND	U/	ND	U/	NC NC NC
Carbon Disulfide	ppbv	270		300		0.45	J/	NC NC NC
Carbon Tetrachloride	ppbv	ND	U/	ND	U/	ND	U/	NC NC NC
Chlorobenzene	ppbv	22	J/	22	J/	0.35	J/	NC NC NC
Chloroethane	ppbv	410		430		1.4	99.66%	99.67% 99.67%
Chloroform	ppbv	2,100		2200		6.3	99.70%	99.71% 99.71%
Chloromethane	ppbv	17	J/	17	J/	1.70	J/	NC NC NC
cis-1,2-Dichloroethene	ppbv	23,000		22000		45	99.80%	99.80% 99.80%
cis-1,3-Dichloropropene	ppbv	ND	U/	ND	U/	ND	U/	NC NC NC
Dibromochloromethane	ppbv	ND	U/	ND	U/	ND	U/	NC NC NC
Ethyl Benzene	ppbv	2,700		2600		12	99.54%	99.56% 99.55%
m,p-Xylene	ppbv	10,000		9700		39	99.60%	99.61% 99.60%
Methylene Chloride	ppbv	3,900		5200		34	99.13%	99.35% 99.24%
o-Xylene	ppbv	5,300		5100		17	99.67%	99.68% 99.67%
Styrene	ppbv	ND	U/	170		6.0	NC	NC NC
Tetrachloroethene	ppbv	21,000		22000		67	99.68%	99.70% 99.69%
Toluene	ppbv	19,000		18000		89	99.51%	99.53% 99.52%
trans-1,2-Dichloroethene	ppbv	130		130		12	90.77%	90.77% 90.77%
trans-1,3-Dichloropropene	ppbv	ND	U/	ND	U/	ND	U/	NC NC NC
Trichloroethene	ppbv	10,000		11000		38	99.62%	99.65% 99.64%
Vinyl Chloride	ppbv	2,900		3000		14	99.52%	99.53% 99.53%
<b>Total</b>	<b>ppbv</b>	<b>119,844</b>		<b>123,226</b>		<b>530.4</b>	<b>99.56%</b>	<b>99.57%</b> <b>99.56%</b>
<b>Total</b>	<b>lb/hr</b>	<b>1.776</b>		<b>1.838</b>		<b>0.007</b>	<b>99.61%</b>	<b>99.62%</b> <b>99.61%</b>

**Notes:**

NC - Not calculated

ND - Non-detect

ppbv - Parts per billion volume

lb/hr - Pounds per hour

**Qualifiers:**

U - Below reported quantitation limit

J - Result is estimated

UB - Compound or analyte is not detected at or above the indicated concentration due to blank contamination.

J/ - Laboratory data qualifier

U/ - Data validation qualifier

Destruction efficiencies were not calculated if either the influent or effluent samples were estimated.

Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

Total destruction efficiencies that include the estimated results of any individual compound will be considered an estimated value.

System	Date	Temp (F)	Flow (scfm)
Therm-Ox 1	06/27/08	96	811

Temperatures and flow rates reported correspond to instantaneous readings.

**Table 3.4**  
**Thermal Oxidizer 2 Results for Method TO-15 (VOCs) - April 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 4/17/08						
		Therm-Ox 2				Destruction Efficiency		
		Influent		Influent Dup		Effluent		Low
1,1,1-Trichloroethane	ppbv	17,000		11,000	/J	280		NC
1,1,2,2-Tetrachloroethane	ppbv	ND	U/	ND	U/	0.4	J/	NC
1,1,2-Trichloroethane	ppbv	ND	U/	ND	U/	2.6		NC
1,1-Dichloroethane	ppbv	2,000		1,600		54		96.63%
1,1-Dichloroethene	ppbv	74	/J	73		77		NC
1,2-Dichloroethane	ppbv	370		350	/J	12		NC
1,2-Dichloropropane	ppbv	77		74	/J	2.3		NC
2-Butanone (Methyl Ethyl Ketone)	ppbv	4,300		3,600	/J	130	/UB	NC
2-Hexanone	ppbv	320		310		6.2		98.00%
4-Methyl-2-pentanone	ppbv	2,300		2,200		57		97.41%
Acetone	ppbv	4,000	/B	2,600	/B	210	/UB	NC
Benzene	ppbv	3,900		3,400	/J	230	/B	NC
Bromodichloromethane	ppbv	ND	U/	ND	U/	0.59		NC
Bromoform	ppbv	ND	U/	ND	U/	ND	U/	NC
Bromomethane	ppbv	ND	U/	ND	U/	0.25	J/	NC
Carbon Disulfide	ppbv	870	/JB	170	/UB	0.89	Jb/UB	NC
Carbon Tetrachloride	ppbv	ND	U/	ND	U/	0.52		NC
Chlorobenzene	ppbv	17	J/	16	J/	2.7		NC
Chloroethane	ppbv	120	/J	100		2.3		NC
Chloroform	ppbv	900	/J	870	/J	34		NC
Chloromethane	ppbv	ND	U/	ND	U/	ND	U/	NC
cis-1,2-Dichloroethene	ppbv	1,200	/J	1,100	/J	33		NC
cis-1,3-Dichloropropene	ppbv	ND	U/	ND	U/	0.58		NC
Dibromochloromethane	ppbv	ND	U/	ND	U/	ND	U/	NC
Ethyl Benzene	ppbv	4,600		3,700	/J	81		NC
m,p-Xylene	ppbv	25,000		24,000	/J	280		NC
Methylene Chloride	ppbv	24,000	/B	13,000	/UB	480	/B	NC
o-Xylene	ppbv	5,700		4,700	/J	110		NC
Styrene	ppbv	460		420		19		95.48%
Tetrachloroethene	ppbv	4,700		4,000		200		95.00%
Toluene	ppbv	41,000		34,000	/J	660	/B	NC
trans-1,2-Dichloroethene	ppbv	30		28	J/	7.2		NC
trans-1,3-Dichloropropene	ppbv	ND	U/	ND	U/	ND	U/	NC
Trichloroethene	ppbv	5,200		4,200	/J	190		NC
Vinyl Chloride	ppbv	230	/J	210		12		NC
<b>Total</b>	<b>ppbv</b>	<b>148,368</b>		<b>115,721</b>		<b>3,175.5</b>	<b>97.26%</b>	<b>97.86%</b>
<b>Total</b>	<b>lb/hr</b>	<b>3.414</b>		<b>2.679</b>		<b>0.073</b>	<b>97.28%</b>	<b>97.86%</b>
								<b>97.56%</b>
								<b>97.57%</b>

**Notes:**

NC - Not calculated

ND - Non-detect

ppbv - parts per billion volume

lb/hr - pounds per hour

**Qualifiers:**

U - below reported quantitation limit

J - Result is estimated

UB - Compound or analyte is not detected at or above the indicated concentration due to blank contamination.

Jb - Detected in the associated Method Blank at a concentration between the Reporting Limit and Method Detection Limit

B - Compound or analyte was positively detected in sample and in associated blank.

/ - Laboratory data qualifier

/\_ - Data validation qualifier

Destruction efficiencies were not calculated if either the influent or effluent samples were estimated.

Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

Total destruction efficiencies that include the estimated results of any individual compound will be considered an estimated value.

System	Date	Temp (F)	Flow (scfm)
Therm-Ox 2	04/17/08	60	1,437

Temperatures and flow rates reported correspond to instantaneous readings.

**Table 3.5**  
**Thermal Oxidizer 2 Results for Method TO-15 (VOCs) - May 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 5/15/08					
		Therm-Ox 2			Destruction Efficiency		
		Influent	Influent Dup	Effluent	Low	High	Average
1,1,1-Trichloroethane	ppbv	NS		NS		NC	NC
1,1,2,2-Tetrachloroethane	ppbv	NS		NS		NC	NC
1,1,2-Trichloroethane	ppbv	NS		NS		NC	NC
1,1-Dichloroethane	ppbv	NS		NS		NC	NC
1,1-Dichloroethene	ppbv	NS		NS		NC	NC
1,2-Dichloroethane	ppbv	NS		NS		NC	NC
1,2-Dichloropropane	ppbv	NS		NS		NC	NC
2-Butanone (Methyl Ethyl Ketone)	ppbv	NS		NS		NC	NC
2-Hexanone	ppbv	NS		NS		NC	NC
4-Methyl-2-pentanone	ppbv	NS		NS		NC	NC
Acetone	ppbv	NS		NS		NC	NC
Benzene	ppbv	NS		NS		NC	NC
Bromodichloromethane	ppbv	NS		NS		NC	NC
Bromoform	ppbv	NS		NS		NC	NC
Bromomethane	ppbv	NS		NS		NC	NC
Carbon Disulfide	ppbv	NS		NS		NC	NC
Carbon Tetrachloride	ppbv	NS		NS		NC	NC
Chlorobenzene	ppbv	NS		NS		NC	NC
Chloroethane	ppbv	NS		NS		NC	NC
Chloroform	ppbv	NS		NS		NC	NC
Chloromethane	ppbv	NS		NS		NC	NC
cis-1,2-Dichloroethene	ppbv	NS		NS		NC	NC
cis-1,3-Dichloropropene	ppbv	NS		NS		NC	NC
Dibromochloromethane	ppbv	NS		NS		NC	NC
Ethyl Benzene	ppbv	NS		NS		NC	NC
m,p-Xylene	ppbv	NS		NS		NC	NC
Methylene Chloride	ppbv	NS		NS		NC	NC
o-Xylene	ppbv	NS		NS		NC	NC
Styrene	ppbv	NS		NS		NC	NC
Tetrachloroethene	ppbv	NS		NS		NC	NC
Toluene	ppbv	NS		NS		NC	NC
trans-1,2-Dichloroethene	ppbv	NS		NS		NC	NC
trans-1,3-Dichloropropene	ppbv	NS		NS		NC	NC
Trichloroethene	ppbv	NS		NS		NC	NC
Vinyl Chloride	ppbv	NS		NS		NC	NC
<b>Total</b>	<b>ppbv</b>	<b>0</b>	<b>0</b>	<b>0</b>		NC	NC
<b>Total</b>	<b>lb/hr</b>	<b>NC</b>	<b>NC</b>	<b>NC</b>		NC	NC

**Notes:**

NC - Not calculated

NS - Not sampled

ppbv - parts per billion volume

lb/hr - pounds per hour

Samples were not collected from ThermOx 2 because the unit was not operational.

System	Date	Temp (F)	Flow (scfm)
Therm-Ox 2	05/15/08	NA	NA

Temperatures and flow rates reported correspond to instantaneous readings.

**Table 3.6**  
**Thermal Oxidizer 2 Results for Method TO-15 (VOCs) - June 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 6/27/08					
		Therm-Ox 2				Destruction Efficiency	
		Influent	Influent Dup	Effluent		Low	High
1,1,1-Trichloroethane	ppbv	12,000		16,000		640	
1,1,2,2-Tetrachloroethane	ppbv	ND	U/	ND	U/	ND	U/
1,1,2-Trichloroethane	ppbv	ND	U/	77		ND	U/
1,1-Dichloroethane	ppbv	3,900		3,700		98	
1,1-Dichloroethene	ppbv	91		87		250	
1,2-Dichloroethane	ppbv	530		480		15	
1,2-Dichloropropane	ppbv	110		100		ND	U/
2-Butanone (Methyl Ethyl Ketone)	ppbv	6,900		7,200	/B	300	
2-Hexanone	ppbv	ND	U/	370		ND	U/
4-Methyl-2-pentanone	ppbv	3,700		3,600		57	
Acetone	ppbv	10,000	/UB	9,600	/UB	470	/UB
Benzene	ppbv	7,600		8,300		620	
Bromodichloromethane	ppbv	ND	U/	ND	U/	ND	U/
Bromoform	ppbv	ND	U/	ND	U/	ND	U/
Bromomethane	ppbv	ND	U/	ND	U/	ND	U/
Carbon Disulfide	ppbv	670		400		ND	U/
Carbon Tetrachloride	ppbv	ND	U/	ND	U/	1.1	J/
Chlorobenzene	ppbv	51		66		4.4	
Chloroethane	ppbv	530		640		14	
Chloroform	ppbv	1,400		1,100		41	
Chloromethane	ppbv	23	J/	22	J/	24	
cis-1,2-Dichloroethene	ppbv	3,000		3,200		200	
cis-1,3-Dichloropropene	ppbv	ND	U/	ND	U/	ND	U/
Dibromochloromethane	ppbv	ND	U/	ND	U/	ND	U/
Ethyl Benzene	ppbv	5,600		5,600		190	
m,p-Xylene	ppbv	17,000		20,000		660	
Methylene Chloride	ppbv	13,000		12,000		900	
o-Xylene	ppbv	6,300		8,100		280	
Styrene	ppbv	ND	U/	ND	U/	49	
Tetrachloroethene	ppbv	7,600		8,400		630	
Toluene	ppbv	36,000		31,000		1,500	
trans-1,2-Dichloroethene	ppbv	48		49		15	
trans-1,3-Dichloropropene	ppbv	ND	U/	ND	U/	ND	U/
Trichloroethene	ppbv	7,400		9,000		490	
Vinyl Chloride	ppbv	1,400		1,400		69	
<b>Total</b>	<b>ppbv</b>	<b>144,853</b>		<b>150,491</b>		<b>7,517.5</b>	<b>94.81%</b>
<b>Total</b>	<b>lb/hr</b>	<b>4.707</b>		<b>4.992</b>		<b>0.249</b>	<b>94.71%</b>
							<b>95.01%</b>
							<b>94.86%</b>

**Notes:**

NC - Not calculated

ND - Non-detect

ppbv - parts per billion volume

lb/hr - pounds per hour

**Qualifiers:**

U - below reported quantitation limit

J - Result is estimated

UB - Compound or analyte is not detected at or above the indicated concentration due to blank contamination.

Jb - Detected in the associated Method Blank at a concentration between the Reporting Limit and Method Detection Limit

B - Compound or analyte was positively detected in sample and in associated blank.

/ - Laboratory data qualifier

/\_ - Data validation qualifier

Destruction efficiencies were not calculated if either the influent or effluent samples were estimated.

Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

Total destruction efficiencies that include the estimated results of any individual compound will be considered an estimated value.

System	Date	Temp (F)	Flow (scfm)
Therm-Ox 2	06/27/08	72	2,057

Temperatures and flow rates reported correspond to instantaneous readings.

**Table 3.7**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-15 (VOCs) - April 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 4/17/08			
		SBPA ISVE		Off-Site ISVE	
1,1,1-Trichloroethane	ppbv	3,300	/J	11,000	/J
1,1,2,2-Tetrachloroethane	ppbv	ND	U/	ND	U/
1,1,2-Trichloroethane	ppbv	ND	U/	ND	U/
1,1-Dichloroethane	ppbv	750		2,100	
1,1-Dichloroethene	ppbv	59		72	
1,2-Dichloroethane	ppbv	86		350	/J
1,2-Dichloropropane	ppbv	69		79	/J
2-Butanone (Methyl Ethyl Ketone)	ppbv	ND	U/	4,700	/J
2-Hexanone	ppbv	ND	U/	320	
4-Methyl-2-pentanone	ppbv	300		2,600	
Acetone	ppbv	140	/UB	4,400	/B
Benzene	ppbv	480		4,300	/J
Bromodichloromethane	ppbv	ND	U/	ND	U/
Bromoform	ppbv	ND	U/	ND	U/
Bromomethane	ppbv	ND	U/	ND	U/
Carbon Disulfide	ppbv	110	J/UB	200	/UB
Carbon Tetrachloride	ppbv	ND	U/	ND	U/
Chlorobenzene	ppbv	ND	U/	16	J/
Chloroethane	ppbv	340		110	
Chloroform	ppbv	1,100	/J	870	/J
Chloromethane	ppbv	ND	U/	ND	U/
cis-1,2-Dichloroethene	ppbv	3,800	/J	1,100	/J
cis-1,3-Dichloropropene	ppbv	ND	U/	ND	U/
Dibromochloromethane	ppbv	ND	U/	ND	U/
Ethyl Benzene	ppbv	1,100		5,300	
m,p-Xylene	ppbv	4,200		21,000	/J
Methylene Chloride	ppbv	1,000	/B	14,000	/UB
o-Xylene	ppbv	2,100		7,600	/J
Styrene	ppbv	160		460	
Tetrachloroethene	ppbv	3,500		5,100	
Toluene	ppbv	3,100		31,000	/J
trans-1,2-Dichloroethene	ppbv	64		30	
trans-1,3-Dichloropropene	ppbv	ND	U/	ND	U/
Trichloroethene	ppbv	2,100		5,400	/J
Vinyl Chloride	ppbv	900		230	
<b>Total</b>	<b>ppbv</b>	<b>28,758</b>		<b>122,337</b>	
<b>Total</b>	<b>lb/hr</b>	<b>0.467</b>		<b>2.928</b>	

**Notes:**

NC - Not calculated  
 ND - Non-detect  
 ppbv - parts per billion volume  
 lb/hr - pounds per hour

**Qualifiers:**

J - Result is estimated  
 U - Below reported quantitation limit  
 B - Compound or analyte was positively detected in sample and in associated blank.  
 UB - Compound or analyte is not detected at or above the indicated concentration due to blank contamination.  
 \_J - Laboratory data qualifier  
 \_/ - Data validation qualifier

System	Date	Temp (F)	Flow (scfm)
On-site	04/17/08	84	912
Off-site	04/17/08	55	1,487

Temperatures and flow rates reported correspond to instantaneous readings.

**Table 3.8**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-15 (VOCs) - May 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 5/15/08		
		SBPA ISVE	Off-Site ISVE	
1,1,1-Trichloroethane	ppbv	5,500		NS
1,1,2,2-Tetrachloroethane	ppbv	ND	U/	NS
1,1,2-Trichloroethane	ppbv	19	J/	NS
1,1-Dichloroethane	ppbv	1,200		NS
1,1-Dichloroethene	ppbv	92		NS
1,2-Dichloroethane	ppbv	91		NS
1,2-Dichloropropane	ppbv	110		NS
2-Butanone (Methyl Ethyl Ketone)	ppbv	110	J/UB	NS
2-Hexanone	ppbv	130		NS
4-Methyl-2-pentanone	ppbv	360		NS
Acetone	ppbv	160	/UB	NS
Benzene	ppbv	960		NS
Bromodichloromethane	ppbv	34		NS
Bromoform	ppbv	ND	U/	NS
Bromomethane	ppbv	ND	U/	NS
Carbon Disulfide	ppbv	320		NS
Carbon Tetrachloride	ppbv	ND	U/	NS
Chlorobenzene	ppbv	100		NS
Chloroethane	ppbv	520		NS
Chloroform	ppbv	1,500		NS
Chloromethane	ppbv	ND	U/	NS
cis-1,2-Dichloroethene	ppbv	24,000		NS
cis-1,3-Dichloropropene	ppbv	ND	U/	NS
Dibromochloromethane	ppbv	ND	U/	NS
Ethyl Benzene	ppbv	1,900		NS
m,p-Xylene	ppbv	7,800		NS
Methylene Chloride	ppbv	1,000		NS
o-Xylene	ppbv	4,200		NS
Styrene	ppbv	43		NS
Tetrachloroethene	ppbv	19,000		NS
Toluene	ppbv	13,000		NS
trans-1,2-Dichloroethene	ppbv	93		NS
trans-1,3-Dichloropropene	ppbv	ND	U/	NS
Trichloroethene	ppbv	4,600		NS
Vinyl Chloride	ppbv	2,500		NS
<b>Total</b>	<b>ppbv</b>	<b>89,342</b>		<b>0</b>
<b>Total</b>	<b>lb/hr</b>	<b>1.514</b>		<b>NC</b>

**Notes:**

NC - Not calculated  
 ND - Non-detect  
 NS - Not sampled  
 ppbv - parts per billion volume  
 lb/hr - pounds per hour  
 Samples were not collected from the  
     Off-Site ISVE system because  
     ThermOx 2 was not operational.

**Qualifiers:**

J - Result is estimated  
 U - Below reported quantitation limit  
 UB - Compound or analyte is not detected at or above the  
     indicated concentration due to blank contamination.  
 \_/ - Laboratory data qualifier  
 /\_ - Data validation qualifier

System	Date	Temp (F)	Flow (scfm)
On-site	05/15/08	84	930
Off-site	05/15/08	85	70

Temperatures and flow rates reported correspond to instantaneous readings.

**Table 3.9**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-15 (VOCs) - June 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 6/27/08			
		SBPA ISVE		Off-Site ISVE	
1,1,1-Trichloroethane	ppbv	11,000		15,000	
1,1,2,2-Tetrachloroethane	ppbv	20	J/	ND	U/
1,1,2-Trichloroethane	ppbv	ND	U/	ND	U/
1,1-Dichloroethane	ppbv	2,500		4,800	
1,1-Dichloroethene	ppbv	120		110	
1,2-Dichloroethane	ppbv	190		710	
1,2-Dichloropropane	ppbv	140		120	
2-Butanone (Methyl Ethyl Ketone)	ppbv	ND	U/	6,000	
2-Hexanone	ppbv	ND	U/	ND	U/
4-Methyl-2-pentanone	ppbv	310		4,300	
Acetone	ppbv	370	/UB	6,000	/UB
Benzene	ppbv	1,800		8,900	
Bromodichloromethane	ppbv	ND	U/	ND	U/
Bromoform	ppbv	ND	U/	ND	U/
Bromomethane	ppbv	ND	U/	ND	U/
Carbon Disulfide	ppbv	740		580	
Carbon Tetrachloride	ppbv	ND	U/	ND	U/
Chlorobenzene	ppbv	21	J/	20	J/
Chloroethane	ppbv	400		300	
Chloroform	ppbv	2,400		1,800	
Chloromethane	ppbv	13	J/	33	J/
cis-1,2-Dichloroethene	ppbv	22,000		2,300	
cis-1,3-Dichloropropene	ppbv	ND	U/	ND	U/
Dibromochloromethane	ppbv	ND	U/	ND	U/
Ethyl Benzene	ppbv	2,900		4,700	
m,p-Xylene	ppbv	12,000		19,000	
Methylene Chloride	ppbv	4,300		17,000	
o-Xylene	ppbv	6,000		7,400	
Styrene	ppbv	ND	U/	ND	U/
Tetrachloroethene	ppbv	20,000		8,900	
Toluene	ppbv	19,000		43,000	
trans-1,2-Dichloroethene	ppbv	120		45	
trans-1,3-Dichloropropene	ppbv	ND	U/	ND	U/
Trichloroethene	ppbv	8,100		8,700	
Vinyl Chloride	ppbv	3,300		1,000	
<b>Total</b>	<b>ppbv</b>	<b>117,744</b>		<b>160,718</b>	
<b>Total</b>	<b>lb/hr</b>	<b>2.030</b>		<b>4.188</b>	

**Notes:**

NC - Not calculated

ND - Non-detect

ppbv - parts per billion volume

lb/hr - pounds per hour

**Qualifiers:**

J - Result is estimated

U - Below reported quantitation limit

UB - Compound or analyte is not detected at or above the indicated concentration due to blank contamination.

\_J - Laboratory data qualifier

\_U - Data validation qualifier

System	Date	Temp (F)	Flow (scfm)
On-site	06/27/08	96	958
Off-site	06/27/08	69	1,617

Temperatures and flow rates reported correspond to instantaneous readings.

**Table 3.10**  
**Thermal Oxidizer 1 Results for Method TO-13 (SVOCs) - April 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 4/17/08						
		Therm-Ox 1				Destruction Efficiency		
		Influent		Influent Dup		Effluent		Low
Compounds	Units	Influent	Influent Dup	Effluent	Effluent	Low	High	Average
1,2,4-Trichlorobenzene	µg	ND	U/	ND	U/	ND	U/	NC
1,2-Dichlorobenzene	µg	3.6	J/	1.4	J/	ND	U/	NC
1,3-Dichlorobenzene	µg	ND	U/	ND	U/	ND	U/	NC
1,4-Dichlorobenzene	µg	1.1	J/	ND	U/	ND	U/	NC
2,4,5-Trichlorophenol	µg	ND	U/	ND	U/	ND	U/	NC
2,4,6-Trichlorophenol	µg	ND	U/	ND	U/	ND	U/	NC
2,4-Dichlorophenol	µg	ND	U/	ND	U/	ND	U/	NC
2,4-Dimethylphenol	µg	ND	U/	ND	U/	ND	U/	NC
2,4-Dinitrophenol	µg	ND	U/	ND	U/	ND	U/	NC
2,4-Dinitrotoluene	µg	ND	U/	ND	U/	ND	U/	NC
2,6-Dinitrotoluene	µg	ND	U/	ND	U/	ND	U/	NC
2-Chloronaphthalene	µg	ND	U/	ND	U/	ND	U/	NC
2-Chlorophenol	µg	ND	U/	ND	U/	ND	U/	NC
2-Methylnaphthalene	µg	1.1	J/	ND	U/	ND	U/	NC
2-Methylphenol	µg	ND	U/	ND	U/	ND	U/	NC
2-Nitroaniline	µg	ND	U/	ND	U/	ND	U/	NC
2-Nitrophenol	µg	ND	U/	ND	U/	ND	U/	NC
3,3'-Dichlorobenzidine	µg	ND	U/	ND	U/	ND	U/	NC
3/4-Methylphenol	µg	ND	U/	ND	U/	ND	U/	NC
3-Nitroaniline	µg	ND	U/	ND	U/	ND	U/	NC
4,6-Dinitro-2-methylphenol	µg	ND	U/	ND	U/	ND	U/	NC
4-Bromophenyl phenyl ether	µg	ND	U/	ND	U/	ND	U/	NC
4-Chloro-3-methylphenol	µg	ND	U/	ND	U/	ND	U/	NC
4-Chloroaniline	µg	ND	U/	ND	U/	ND	U/	NC
4-Chlorophenyl phenyl ether	µg	ND	U/	ND	U/	ND	U/	NC
4-Nitroaniline	µg	ND	U/	ND	U/	ND	U/	NC
4-Nitrophenol	µg	ND	U/	ND	U/	ND	U/	NC
Acenaphthene	µg	ND	U/	ND	U/	ND	U/	NC
Acenaphthylene	µg	ND	U/	ND	U/	ND	U/	NC
Anthracene	µg	ND	U/	ND	U/	ND	U/	NC
Benzo[a]anthracene	µg	0.53	J/	ND	U/	0.49	J/	NC
Benzo[a]pyrene	µg	ND	U/	ND	U/	ND	U/	NC
Benzo[b]fluoranthene	µg	ND	U/	ND	U/	ND	U/	NC
Benzo[g,h,i]perylene	µg	ND	U/	ND	U/	ND	U/	NC
Benzo[k]fluoranthene	µg	ND	U/	ND	U/	ND	U/	NC
Bis(2-chloroethoxy)methane	µg	ND	U/	ND	U/	ND	U/	NC
Bis(2-chloroethyl)ether	µg	ND	U/	ND	U/	ND	U/	NC
Bis(2-chloroisopropyl)ether	µg	ND	U/	ND	U/	ND	U/	NC
Bis(2-ethylhexyl)phthalate	µg	ND	U/	1.9	Jb/UB	2	Jb/UB	NC
Butyl benzyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC
Carbazole	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC
Chrysene	µg	ND	U/	ND	U/	ND	U/	NC
Dibenz[a,h]anthracene	µg	ND	U/	ND	U/	ND	U/	NC
Dibenzofuran	µg	ND	U/	ND	U/	ND	U/	NC
Diethyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC
Dimethyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC
Di-n-butyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC
Di-n-octyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC
Fluoranthene	µg	ND	U/	ND	U/	ND	U/	NC
Fluorene	µg	ND	U/	ND	U/	ND	U/	NC
Hexachlorobenzene	µg	ND	U/	ND	U/	ND	U/	NC
Hexachlorobutadiene	µg	1.3	J/	ND	U/	ND	U/	NC
Hexachlorocyclopentadiene	µg	ND	U/	ND	U/	ND	U/	NC
Hexachloroethane	µg	ND	U/	ND	U/	ND	U/	NC

**Table 3.10**  
**Thermal Oxidizer 1 Results for Method TO-13 (SVOCs) - April 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 4/17/08								
		Therm-Ox 1				Destruction Efficiency				
		Influent		Influent Dup		Effluent		Low	High	Average
Indeno[1,2,3cd]pyrene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Isophorone	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Naphthalene	µg	2.3		0.69	J/	ND	U/	NC	NC	NC
Nitrobenzene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
N-Nitrosodi-n-propylamine	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
N-Nitrosodiphenylamine	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Pentachlorophenol	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Phenanthrene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Phenol	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Pyrene	µg	1.6	b/UB	0.76	Jb/UB	1.0	b/UB	NC	NC	NC
<b>Total</b>	µg	<b>11.53</b>		<b>4.75</b>		<b>3.49</b>		NC	NC	NC

**Notes:**

µg - Microgram

NC - Not calculated

ND - Non-detect

**Qualifiers:**

J - Result is estimated

U - below reported quantitation limit

b - Detected in the associated Method Blank at a concentration above the Method Detection Limit but less than the routine Reporting Limit.

Jb - Detected in the associated Method Blank at a concentration between the Reporting Limit and Method Detection Limit

UB - Compound or analyte is not detected at or above the indicated concentration due to blank contamination.

UJ - Indicates the compound or analyte was analyzed for but not detected.  
The sample detection limit is an estimated value.

/ - Laboratory data qualifier

/\_ - Data validation qualifier

/\_\_ - Data validation qualifier

**Table 3.11**  
**Thermal Oxidizer 1 Results for Method TO-13 (SVOCs) - May 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 5/15/08								
		Therm-Ox 1						Destruction Efficiency		
		Influent		Influent Dup		Effluent		Low	High	Average
1,2,4-Trichlorobenzene	µg	ND	U/	NS		ND	U/	NC	NC	NC
1,2-Dichlorobenzene	µg	3.4	J/	NS		ND	U/	NC	NC	NC
1,3-Dichlorobenzene	µg	ND	U/	NS		ND	U/	NC	NC	NC
1,4-Dichlorobenzene	µg	1.2	J/	NS		ND	U/	NC	NC	NC
2,4,5-Trichlorophenol	µg	ND	U/	NS		ND	U/	NC	NC	NC
2,4,6-Trichlorophenol	µg	ND	U/	NS		ND	U/	NC	NC	NC
2,4-Dichlorophenol	µg	ND	U/	NS		ND	U/	NC	NC	NC
2,4-Dimethylphenol	µg	ND	U/	NS		ND	U/	NC	NC	NC
2,4-Dinitrophenol	µg	ND	U/	NS		ND	U/	NC	NC	NC
2,4-Dinitrotoluene	µg	ND	U/	NS		ND	U/	NC	NC	NC
2,6-Dinitrotoluene	µg	ND	U/	NS		ND	U/	NC	NC	NC
2-Chloronaphthalene	µg	ND	U/	NS		ND	U/	NC	NC	NC
2-Chlorophenol	µg	ND	U/	NS		ND	U/	NC	NC	NC
2-Methylnaphthalene	µg	ND	U/	NS		ND	U/	NC	NC	NC
2-Methylphenol	µg	ND	U/	NS		ND	U/	NC	NC	NC
2-Nitroaniline	µg	ND	U/	NS		ND	U/	NC	NC	NC
2-Nitrophenol	µg	ND	U/	NS		ND	U/	NC	NC	NC
3,3,-Dichlorobenzidine	µg	ND	U/	NS		ND	U/	NC	NC	NC
3/4-Methylphenol	µg	ND	U/	NS		ND	U/	NC	NC	NC
3-Nitroaniline	µg	ND	U/	NS		ND	U/	NC	NC	NC
4,6-Dinitro-2-methylphenol	µg	ND	U/	NS		ND	U/	NC	NC	NC
4-Bromophenyl phenyl ether	µg	ND	U/	NS		ND	U/	NC	NC	NC
4-Chloro-3-methylphenol	µg	ND	U/	NS		ND	U/	NC	NC	NC
4-Chloroaniline	µg	ND	U/	NS		ND	U/	NC	NC	NC
4-Chlorophenyl phenyl ether	µg	ND	U/	NS		ND	U/	NC	NC	NC
4-Nitroaniline	µg	ND	U/	NS		ND	U/	NC	NC	NC
4-Nitrophenol	µg	ND	U/UJ	NS		ND	U/UJ	NC	NC	NC
Acenaphthene	µg	ND	U/	NS		ND	U/	NC	NC	NC
Acenaphthylene	µg	ND	U/	NS		ND	U/	NC	NC	NC
Anthracene	µg	ND	U/	NS		ND	U/	NC	NC	NC
Benz[a]anthracene	µg	ND	U/	NS		ND	U/	NC	NC	NC
Benz[a]pyrene	µg	ND	U/	NS		ND	U/	NC	NC	NC
Benz[b]fluoranthene	µg	ND	U/	NS		ND	U/	NC	NC	NC
Benz[g,h,i]perylene	µg	ND	U/	NS		ND	U/	NC	NC	NC
Benz[k]fluoranthene	µg	ND	U/	NS		ND	U/	NC	NC	NC
Bis(2-chloroethoxy)methane	µg	ND	U/	NS		ND	U/	NC	NC	NC
Bis(2-chloroethyl)ether	µg	ND	U/	NS		ND	U/	NC	NC	NC
Bis(2-chloroisopropyl)ether	µg	ND	U/	NS		ND	U/	NC	NC	NC
Bis(2-ethylhexyl)phthalate	µg	1.6	J/	NS		1.6	J/	NC	NC	NC
Butyl benzyl phthalate	µg	ND	U/	NS		ND	U/	NC	NC	NC
Carbazole	µg	ND	U/UJ	NS		ND	U/UJ	NC	NC	NC
Chrysene	µg	ND	U/	NS		ND	U/	NC	NC	NC
Dibenz[a,h]anthracene	µg	ND	U/	NS		ND	U/	NC	NC	NC
Dibenzofuran	µg	ND	U/	NS		ND	U/	NC	NC	NC
Diethyl phthalate	µg	ND	U/	NS		ND	U/	NC	NC	NC
Dimethyl phthalate	µg	ND	U/	NS		ND	U/	NC	NC	NC
Di-n-butyl phthalate	µg	ND	U/	NS		ND	U/	NC	NC	NC
Di-n-octyl phthalate	µg	ND	U/	NS		ND	U/	NC	NC	NC
Fluoranthene	µg	ND	U/	NS		ND	U/	NC	NC	NC
Fluorene	µg	ND	U/	NS		ND	U/	NC	NC	NC
Hexachlorobenzene	µg	ND	U/	NS		ND	U/	NC	NC	NC
Hexachlorobutadiene	µg	ND	U/	NS		ND	U/	NC	NC	NC
Hexachlorocyclopentadiene	µg	ND	U/UJ	NS		ND	U/UJ	NC	NC	NC
Hexachloroethane	µg	ND	U/	NS		ND	U/	NC	NC	NC

**Table 3.11**  
**Thermal Oxidizer 1 Results for Method TO-13 (SVOCs) - May 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 5/15/08								
		Therm-Ox 1						Destruction Efficiency		
		Influent		Influent Dup		Effluent		Low	High	Average
Indeno[1,2,3cd]pyrene	µg	ND	U/	NS		ND	U/	NC	NC	NC
Isophorone	µg	ND	U/	NS		ND	U/	NC	NC	NC
Naphthalene	µg	1.5		NS		ND	U/	NC	NC	NC
Nitrobenzene	µg	ND	U/	NS		ND	U/	NC	NC	NC
N-Nitrosodi-n-propylamine	µg	ND	U/	NS		ND	U/	NC	NC	NC
N-Nitrosodiphenylamine	µg	ND	U/	NS		ND	U/	NC	NC	NC
Pentachlorophenol	µg	ND	U/	NS		ND	U/	NC	NC	NC
Phenanthrene	µg	ND	U/	NS		ND	U/	NC	NC	NC
Phenol	µg	ND	U/	NS		ND	U/	NC	NC	NC
Pyrene	µg	0.85	J/	NS		0.6	J/	NC	NC	NC
<b>Total</b>	µg	<b>8.55</b>		<b>0</b>		<b>2.20</b>		NC	NC	NC

**Notes:**

µg - Microgram

NC - Not calculated

ND - Non-detect

NS - Not sampled

The influent duplicate sample was not analyzed because the sample was compromised.

As a result, destruction efficiencies were not calculated.

**Qualifiers:**

J - Result is estimated

U - below reported quantitation limit

UJ - Indicates the compound or analyte was analyzed for but not detected.

The sample detection limit is an estimated value.

/ - Laboratory data qualifier

\_ - Data validation qualifier

**Table 3.12**  
**Thermal Oxidizer 1 Results for Method TO-13 (SVOCs) - June 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 6/27/08						
		Therm-Ox 1				Destruction Efficiency		
		Influent	Influent Dup	Effluent		Low	High	Average
1,2,4-Trichlorobenzene	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC NC NC
1,2-Dichlorobenzene	µg	5.6	J/	3.3	J/	ND	U/	NC NC NC
1,3-Dichlorobenzene	µg	ND	U/	ND	U/	ND	U/	NC NC NC
1,4-Dichlorobenzene	µg	1.4	J/J	1.0	J/J	ND	U/UJ	NC NC NC
2,4,5-Trichlorophenol	µg	ND	U/	ND	U/	ND	U/	NC NC NC
2,4,6-Trichlorophenol	µg	ND	U/	ND	U/	ND	U/	NC NC NC
2,4-Dichlorophenol	µg	ND	U/	ND	U/	ND	U/	NC NC NC
2,4-Dimethylphenol	µg	ND	U/	ND	U/	ND	U/	NC NC NC
2,4-Dinitrophenol	µg	ND	U/	ND	U/	ND	U/	NC NC NC
2,4-Dinitrotoluene	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC NC NC
2,6-Dinitrotoluene	µg	ND	U/	ND	U/	ND	U/	NC NC NC
2-Chloronaphthalene	µg	ND	U/	ND	U/	ND	U/	NC NC NC
2-Chlorophenol	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC NC NC
2-Methylnaphthalene	µg	ND	U/	ND	U/	ND	U/	NC NC NC
2-Methylphenol	µg	ND	U/	ND	U/	ND	U/	NC NC NC
2-Nitroaniline	µg	ND	U/	ND	U/	ND	U/	NC NC NC
2-Nitrophenol	µg	ND	U/	ND	U/	ND	U/	NC NC NC
3,3,-Dichlorobenzidine	µg	ND	U/	ND	U/	ND	U/	NC NC NC
3/4-Methylphenol	µg	ND	U/	ND	U/	ND	U/	NC NC NC
3-Nitroaniline	µg	ND	U/	ND	U/	ND	U/	NC NC NC
4,6-Dinitro-2-methylphenol	µg	ND	U/	ND	U/	ND	U/	NC NC NC
4-Bromophenyl phenyl ether	µg	ND	U/	ND	U/	ND	U/	NC NC NC
4-Chloro-3-methylphenol	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC NC NC
4-Chloroaniline	µg	ND	U/	ND	U/	ND	U/	NC NC NC
4-Chlorophenyl phenyl ether	µg	ND	U/	ND	U/	ND	U/	NC NC NC
4-Nitroaniline	µg	ND	U/	ND	U/	ND	U/	NC NC NC
4-Nitrophenol	µg	ND	U/R	ND	U/R	ND	U/R	NC NC NC
Acenaphthene	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC NC NC
Acenaphthylene	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Anthracene	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Benzo[a]anthracene	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Benzo[a]pyrene	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Benzo[b]fluoranthene	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC NC NC
Benzo[g,h,i]perylene	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Benzo[k]fluoranthene	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Bis(2-chloroethoxy)methane	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Bis(2-chloroethyl)ether	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Bis(2-chloroisopropyl)ether	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Bis(2-ethylhexyl)phthalate	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Butyl benzyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Carbazole	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Chrysene	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Dibenz[a,h]anthracene	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Dibenzofuran	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Diethyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Dimethyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Di-n-butyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Di-n-octyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Fluoranthene	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Fluorene	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Hexachlorobenzene	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Hexachlorobutadiene	µg	1.6	J/	ND	U/	ND	U/	NC NC NC
Hexachlorocyclopentadiene	µg	ND	U/	ND	U/	ND	U/	NC NC NC
Hexachloroethane	µg	ND	U/	ND	U/	ND	U/	NC NC NC

**Table 3.12**  
**Thermal Oxidizer 1 Results for Method TO-13 (SVOCs) - June 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 6/27/08								
		Therm-Ox 1						Destruction Efficiency		
		Influent		Influent Dup		Effluent		Low	High	Average
Indeno[1,2,3cd]pyrene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Isophorone	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Naphthalene	µg	1.8		1.0		ND	U/	100.00%	100.00%	100.00%
Nitrobenzene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
N-Nitrosodi-n-propylamine	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC	NC
N-Nitrosodiphenylamine	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Pentachlorophenol	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC	NC
Phenanthrene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Phenol	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC	NC
Pyrene	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC	NC
<b>Total</b>	µg	<b>10.40</b>		<b>5.30</b>		<b>0.00</b>		NC	NC	NC

**Notes:**

µg - Microgram

NC - Not calculated

ND - Non-detect

**Qualifiers:**

J - Result is estimated

U - below reported quantitation limit

R - Quality control indicates the data is not usable.

\_/\_ - Laboratory data qualifier

/\_ - Data validation qualifier

/\_ - Data validation qualifier

**Table 3.13**  
**Thermal Oxidizer 2 Results for Method TO-13 (SVOCs) - April 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 4/17/08							
		Therm-Ox 2				Destruction Efficiency			
Influent	Influent Dup	Effluent		Low	High	Average			
Units									
1,2,4-Trichlorobenzene	µg	ND	U/	ND	U/	ND	U/	NC	NC
1,2-Dichlorobenzene	µg	5.9	J/	5.9	J/	ND	U/	NC	NC
1,3-Dichlorobenzene	µg	ND	U/	ND	U/	ND	U/	NC	NC
1,4-Dichlorobenzene	µg	1.4	J/	1.2	J/	ND	U/	NC	NC
2,4,5-Trichlorophenol	µg	ND	U/	ND	U/	ND	U/	NC	NC
2,4,6-Trichlorophenol	µg	ND	U/	ND	U/	ND	U/	NC	NC
2,4-Dichlorophenol	µg	ND	U/	ND	U/	ND	U/	NC	NC
2,4-Dimethylphenol	µg	ND	U/	ND	U/	ND	U/	NC	NC
2,4-Dinitrophenol	µg	ND	U/	ND	U/	ND	U/	NC	NC
2,4-Dinitrotoluene	µg	ND	U/	ND	U/	ND	U/	NC	NC
2,6-Dinitrotoluene	µg	ND	U/	ND	U/	ND	U/	NC	NC
2-Chloronaphthalene	µg	ND	U/	ND	U/	ND	U/	NC	NC
2-Chlorophenol	µg	ND	U/	ND	U/	ND	U/	NC	NC
2-Methylnaphthalene	µg	0.99	J/	ND	U/	ND	U/	NC	NC
2-Methylphenol	µg	ND	U/	ND	U/	ND	U/	NC	NC
2-Nitroaniline	µg	ND	U/	ND	U/	ND	U/	NC	NC
2-Nitrophenol	µg	ND	U/	ND	U/	ND	U/	NC	NC
3,3'-Dichlorobenzidine	µg	ND	U/	ND	U/	ND	U/	NC	NC
3/4-Methylphenol	µg	ND	U/	ND	U/	ND	U/	NC	NC
3-Nitroaniline	µg	ND	U/	ND	U/	ND	U/	NC	NC
4,6-Dinitro-2-methylphenol	µg	ND	U/	ND	U/	ND	U/	NC	NC
4-Bromophenyl phenyl ether	µg	ND	U/	ND	U/	ND	U/	NC	NC
4-Chloro-3-methylphenol	µg	ND	U/	ND	U/	ND	U/	NC	NC
4-Chloroaniline	µg	ND	U/	ND	U/	ND	U/	NC	NC
4-Chlorophenyl phenyl ether	µg	ND	U/	ND	U/	ND	U/	NC	NC
4-Nitroaniline	µg	ND	U/	ND	U/	ND	U/	NC	NC
4-Nitrophenol	µg	ND	U/	ND	U/	ND	U/	NC	NC
Acenaphthene	µg	ND	U/	ND	U/	ND	U/	NC	NC
Acenaphthylene	µg	ND	U/	ND	U/	ND	U/	NC	NC
Anthracene	µg	ND	U/	ND	U/	ND	U/	NC	NC
Benzo[a]anthracene	µg	ND	U/	ND	U/	0.66	J/	NC	NC
Benzo[a]pyrene	µg	ND	U/	ND	U/	ND	U/	NC	NC
Benzo[b]fluoranthene	µg	ND	U/	ND	U/	ND	U/	NC	NC
Benzo[g,h,i]perylene	µg	ND	U/	ND	U/	ND	U/	NC	NC
Benzo[k]fluoranthene	µg	ND	U/	ND	U/	ND	U/	NC	NC
Bis(2-chloroethoxy)methane	µg	ND	U/	ND	U/	ND	U/	NC	NC
Bis(2-chloroethyl)ether	µg	ND	U/	ND	U/	ND	U/	NC	NC
Bis(2-chloroisopropyl)ether	µg	ND	U/	ND	U/	ND	U/	NC	NC
Bis(2-ethylhexyl)phthalate	µg	23	b/B	10	b/UB	11	b/UB	NC	NC
Butyl benzyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC	NC
Carbazole	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC
Chrysene	µg	ND	U/	ND	U/	ND	U/	NC	NC
Dibenz[a,h]anthracene	µg	ND	U/	ND	U/	ND	U/	NC	NC
Dibenzofuran	µg	ND	U/	ND	U/	ND	U/	NC	NC
Diethyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC	NC
Dimethyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC	NC
Di-n-butyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC	NC
Di-n-octyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC	NC
Fluoranthene	µg	ND	U/	ND	U/	ND	U/	NC	NC
Fluorene	µg	ND	U/	ND	U/	ND	U/	NC	NC
Hexachlorobenzene	µg	ND	U/	ND	U/	ND	U/	NC	NC
Hexachlorobutadiene	µg	0.93	J/	ND	U/	ND	U/	NC	NC
Hexachlorocyclopentadiene	µg	ND	U/	ND	U/	ND	U/	NC	NC
Hexachloroethane	µg	ND	U/	ND	U/	ND	U/	NC	NC

**Table 3.13**  
**Thermal Oxidizer 2 Results for Method TO-13 (SVOCs) - April 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 4/17/08							
		Therm-Ox 2				Destruction Efficiency			
Influent	Influent Dup	Effluent		Low	High	Average			
Compounds	Units	Influent	Influent Dup	Effluent	Low	High	Average		
Indeno[1,2,3cd]pyrene	µg	ND	U/	ND	U/	ND	U/	NC	NC
Isophorone	µg	7.9	J/	6.6	J/	ND	U/	NC	NC
Naphthalene	µg	10		8.3		0.18	J/	NC	NC
Nitrobenzene	µg	ND	U/	ND	U/	ND	U/	NC	NC
N-Nitrosodi-n-propylamine	µg	ND	U/	ND	U/	ND	U/	NC	NC
N-Nitrosodiphenylamine	µg	ND	U/	ND	U/	ND	U/	NC	NC
Pentachlorophenol	µg	ND	U/	ND	U/	ND	U/	NC	NC
Phenanthrene	µg	ND	U/	ND	U/	ND	U/	NC	NC
Phenol	µg	ND	U/	ND	U/	ND	U/	NC	NC
Pyrene	µg	0.87	Jb/UB	0.52	Jb/UB	0.71	Jb/UB	NC	NC
<b>Total</b>	<b>µg</b>	<b>50.99</b>		<b>32.52</b>		<b>12.55</b>		<b>NC</b>	<b>NC</b>

**Notes:**

µg - Microgram

NC - Not calculated

ND - Non-detect

**Qualifiers:**

J - Result is estimated

U - below reported quantitation limit

b - Detected in the associated Method Blank at a concentration above the Method Detection Limit but less than the routine Reporting Limit.

Jb - Detected in the associated Method Blank at a concentration between the Reporting Limit and Method Detection Limit

UB - Compound or analyte is not detected at or above the indicated concentration due to blank contamination.

UJ - Indicates the compound or analyte was analyzed for but not detected.

The sample detection limit is an estimated value.

/ - Laboratory data qualifier

/\_ - Data validation qualifier

/\_ - Data validation qualifier

**Table 3.14**  
**Thermal Oxidizer 2 Results for Method TO-13 (SVOCs) - May 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 5/15/08					
		Therm-Ox 2			Destruction Efficiency		
		Influent	Influent Dup	Effluent	Low	High	Average
1,2,4-Trichlorobenzene	µg	NS		NS		NC	NC
1,2-Dichlorobenzene	µg	NS		NS		NC	NC
1,3-Dichlorobenzene	µg	NS		NS		NC	NC
1,4-Dichlorobenzene	µg	NS		NS		NC	NC
2,4,5-Trichlorophenol	µg	NS		NS		NC	NC
2,4,6-Trichlorophenol	µg	NS		NS		NC	NC
2,4-Dichlorophenol	µg	NS		NS		NC	NC
2,4-Dimethylphenol	µg	NS		NS		NC	NC
2,4-Dinitrophenol	µg	NS		NS		NC	NC
2,4-Dinitrotoluene	µg	NS		NS		NC	NC
2,6-Dinitrotoluene	µg	NS		NS		NC	NC
2-Chloronaphthalene	µg	NS		NS		NC	NC
2-Chlorophenol	µg	NS		NS		NC	NC
2-Methylnaphthalene	µg	NS		NS		NC	NC
2-Methylphenol	µg	NS		NS		NC	NC
2-Nitroaniline	µg	NS		NS		NC	NC
2-Nitrophenol	µg	NS		NS		NC	NC
3,3--Dichlorobenzidine	µg	NS		NS		NC	NC
3/4-Methylphenol	µg	NS		NS		NC	NC
3-Nitroaniline	µg	NS		NS		NC	NC
4,6-Dinitro-2-methylphenol	µg	NS		NS		NC	NC
4-Bromophenyl phenyl ether	µg	NS		NS		NC	NC
4-Chloro-3-methylphenol	µg	NS		NS		NC	NC
4-Chloroaniline	µg	NS		NS		NC	NC
4-Chlorophenyl phenyl ether	µg	NS		NS		NC	NC
4-Nitroaniline	µg	NS		NS		NC	NC
4-Nitrophenol	µg	NS		NS		NC	NC
Acenaphthene	µg	NS		NS		NC	NC
Acenaphthylene	µg	NS		NS		NC	NC
Anthracene	µg	NS		NS		NC	NC
Benzo[a]anthracene	µg	NS		NS		NC	NC
Benzo[a]pyrene	µg	NS		NS		NC	NC
Benzo[b]fluoranthene	µg	NS		NS		NC	NC
Benzo[g,h,i]perylene	µg	NS		NS		NC	NC
Benzo[k]fluoranthene	µg	NS		NS		NC	NC
Bis(2-chloroethoxy)methane	µg	NS		NS		NC	NC
Bis(2-chloroethyl)ether	µg	NS		NS		NC	NC
Bis(2-chloroisopropyl)ether	µg	NS		NS		NC	NC
Bis(2-ethylhexyl)phthalate	µg	NS		NS		NC	NC
Butyl benzyl phthalate	µg	NS		NS		NC	NC
Carbazole	µg	NS		NS		NC	NC
Chrysene	µg	NS		NS		NC	NC
Dibenz[a,h]anthracene	µg	NS		NS		NC	NC
Dibenzofuran	µg	NS		NS		NC	NC
Diethyl phthalate	µg	NS		NS		NC	NC
Dimethyl phthalate	µg	NS		NS		NC	NC
Di-n-butyl phthalate	µg	NS		NS		NC	NC
Di-n-octyl phthalate	µg	NS		NS		NC	NC
Fluoranthene	µg	NS		NS		NC	NC
Fluorene	µg	NS		NS		NC	NC
Hexachlorobenzene	µg	NS		NS		NC	NC
Hexachlorobutadiene	µg	NS		NS		NC	NC
Hexachlorocyclopentadiene	µg	NS		NS		NC	NC
Hexachloroethane	µg	NS		NS		NC	NC

**Table 3.14**  
**Thermal Oxidizer 2 Results for Method TO-13 (SVOCs) - May 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 5/15/08					
		Therm-Ox 2				Destruction Efficiency	
		Influent	Influent Dup	Effluent		Low	High
Indeno[1,2,3cd]pyrene	µg	NS		NS		NC	NC
Isophorone	µg	NS		NS		NC	NC
Naphthalene	µg	NS		NS		NC	NC
Nitrobenzene	µg	NS		NS		NC	NC
N-Nitrosodi-n-propylamine	µg	NS		NS		NC	NC
N-Nitrosodiphenylamine	µg	NS		NS		NC	NC
Pentachlorophenol	µg	NS		NS		NC	NC
Phenanthrene	µg	NS		NS		NC	NC
Phenol	µg	NS		NS		NC	NC
Pyrene	µg	NS		NS		NC	NC
<b>Total</b>	µg	<b>0</b>		<b>0</b>		<b>0</b>	

**Notes:**

µg - Microgram

NC - Not calculated

NS - Not sampled

Samples were not collected from ThermOx 2 because the unit was not operational.

**Table 3.15**  
**Thermal Oxidizer 2 Results for Method TO-13 (SVOCs) - June 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 6/27/08								
		Therm-Ox 2				Destruction Efficiency				
		Influent		Influent Dup		Effluent		Low	High	Average
1,2,4-Trichlorobenzene	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC	NC
1,2-Dichlorobenzene	µg	3.2	J/	5.8	J/	ND	U/	NC	NC	NC
1,3-Dichlorobenzene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
1,4-Dichlorobenzene	µg	ND	U/UJ	1.4	J/J	ND	U/UJ	NC	NC	NC
2,4,5-Trichlorophenol	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
2,4,6-Trichlorophenol	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
2,4-Dichlorophenol	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
2,4-Dimethylphenol	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
2,4-Dinitrophenol	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
2,4-Dinitrotoluene	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC	NC
2,6-Dinitrotoluene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
2-Chloronaphthalene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
2-Chlorophenol	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC	NC
2-Methylnaphthalene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
2-Methylphenol	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
2-Nitroaniline	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
2-Nitrophenol	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
3,3'-Dichlorobenzidine	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
3/4-Methylphenol	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
3-Nitroaniline	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
4,6-Dinitro-2-methylphenol	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
4-Bromophenyl phenyl ether	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
4-Chloro-3-methylphenol	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC	NC
4-Chloroaniline	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
4-Chlorophenyl phenyl ether	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
4-Nitroaniline	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
4-Nitrophenol	µg	ND	U/R	ND	U/R	ND	U/R	NC	NC	NC
Acenaphthene	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC	NC
Acenaphthylene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Anthracene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Benzo[a]anthracene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Benzo[a]pyrene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Benzo[b]fluoranthene	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC	NC
Benzo[g,h,i]perylene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Benzo[k]fluoranthene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Bis(2-chloroethoxy)methane	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Bis(2-chloroethyl)ether	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Bis(2-chloroisopropyl)ether	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Bis(2-ethylhexyl)phthalate	µg	20		55		2.3	J/	NC	NC	NC
Butyl benzyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Carbazole	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Chrysene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Dibenz[a,h]anthracene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Dibenzofuran	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Diethyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Dimethyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Di-n-butyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Di-n-octyl phthalate	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Fluoranthene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Fluorene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Hexachlorobenzene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Hexachlorobutadiene	µg	ND	U/	1.2	J/	ND	U/	NC	NC	NC
Hexachlorocyclopentadiene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Hexachloroethane	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC

**Table 3.15**  
**Thermal Oxidizer 2 Results for Method TO-13 (SVOCs) - June 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 6/27/08								
		Therm-Ox 2				Destruction Efficiency				
		Influent		Influent Dup		Effluent		Low	High	Average
Indeno[1,2,3cd]pyrene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Isophorone	µg	ND	U/	5.6	J/	ND	U/	NC	NC	NC
Naphthalene	µg	2.7		7.4		ND	U/	100.00%	100.00%	100.00%
Nitrobenzene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
N-Nitrosodi-n-propylamine	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC	NC
N-Nitrosodiphenylamine	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Pentachlorophenol	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC	NC
Phanthrene	µg	ND	U/	ND	U/	ND	U/	NC	NC	NC
Phenol	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC	NC
Pyrene	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC	NC
<b>Total</b>	µg	<b>25.90</b>		<b>76.40</b>		<b>2.30</b>		NC	NC	NC

**Notes:**

µg - Microgram

NC - Not calculated

ND - Non-detect

**Qualifiers:**

J - Result is estimated

U - below reported quantitation limit

R - Quality control indicates the data is not usable.

UJ - Indicates the compound or analyte was analyzed for but not detected.

The sample detection limit is an estimated value.

J/ - Laboratory data qualifier

/\_ - Data validation qualifier

/ - Data validation qualifier

**Table 3.16**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-13 (SVOCs) - April 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 4/17/08			
		SBPA ISVE		Off-Site ISVE	
1,2,4-Trichlorobenzene	µg	ND	U/	ND	U/
1,2-Dichlorobenzene	µg	2.8	J/	7.4	J/
1,3-Dichlorobenzene	µg	ND	U/	ND	U/
1,4-Dichlorobenzene	µg	1.2	J/	1.4	J/
2,4,5-Trichlorophenol	µg	ND	U/	ND	U/
2,4,6-Trichlorophenol	µg	ND	U/	ND	U/
2,4-Dichlorophenol	µg	ND	U/	ND	U/
2,4-Dimethylphenol	µg	ND	U/	ND	U/
2,4-Dinitrophenol	µg	ND	U/	ND	U/
2,4-Dinitrotoluene	µg	ND	U/	ND	U/
2,6-Dinitrotoluene	µg	ND	U/	ND	U/
2-Chloronaphthalene	µg	ND	U/	ND	U/
2-Chlorophenol	µg	ND	U/	ND	U/
2-Methylnaphthalene	µg	ND	U/	2.5	J/
2-Methylphenol	µg	ND	U/	ND	U/
2-Nitroaniline	µg	ND	U/	ND	U/
2-Nitrophenol	µg	ND	U/	ND	U/
3,3--Dichlorobenzidine	µg	ND	U/	ND	U/
3/4-Methylphenol	µg	ND	U/	ND	U/
3-Nitroaniline	µg	ND	U/	ND	U/
4,6-Dinitro-2-methylphenol	µg	ND	U/	ND	U/
4-Bromophenyl phenyl ether	µg	ND	U/	ND	U/
4-Chloro-3-methylphenol	µg	ND	U/	ND	U/
4-Chloroaniline	µg	ND	U/	ND	U/
4-Chlorophenyl phenyl ether	µg	ND	U/	ND	U/
4-Nitroaniline	µg	ND	U/	ND	U/
4-Nitrophenol	µg	ND	U/	ND	U/
Acenaphthene	µg	ND	U/	ND	U/
Acenaphthylene	µg	ND	U/	ND	U/
Anthracene	µg	ND	U/	ND	U/
Benzo[a]anthracene	µg	ND	U/	ND	U/
Benzo[a]pyrene	µg	ND	U/	ND	U/
Benzo[b]fluoranthene	µg	ND	U/	ND	U/
Benzo[g,h,i]perylene	µg	ND	U/	ND	U/
Benzo[k]fluoranthene	µg	ND	U/	ND	U/
Bis(2-chloroethoxy)methane	µg	ND	U/	ND	U/
Bis(2-chloroethyl)ether	µg	ND	U/	ND	U/
Bis(2-chloroisopropyl)ether	µg	ND	U/	ND	U/
Bis(2-ethylhexyl)phthalate	µg	2	Jb/UB	2.3	Jb/UB
Butyl benzyl phthalate	µg	ND	U/	ND	U/
Carbazole	µg	ND	U/UJ	ND	U/UJ
Chrysene	µg	ND	U/	ND	U/
Dibenz[a,h]anthracene	µg	ND	U/	ND	U/
Dibenzofuran	µg	ND	U/	ND	U/
Diethyl phthalate	µg	ND	U/	ND	U/
Dimethyl phthalate	µg	ND	U/	ND	U/
Di-n-butyl phthalate	µg	ND	U/	ND	U/
Di-n-octyl phthalate	µg	ND	U/	ND	U/
Fluoranthene	µg	ND	U/	0.41	Jb/UB
Fluorene	µg	ND	U/	ND	U/
Hexachlorobenzene	µg	ND	U/	ND	U/
Hexachlorobutadiene	µg	0.97	J/	1.2	J/
Hexachlorocyclopentadiene	µg	ND	U/	ND	U/
Hexachloroethane	µg	ND	U/	ND	U/

**Table 3.16**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-13 (SVOCs) - April 2008**  
**American Chemical Service**  
**Griffith, Indiana**

<b>Compounds</b>	<b>Units</b>	<b>Sampled 4/17/08</b>			
		<b>SBPA ISVE</b>	<b>Off-Site ISVE</b>		
Indeno[1,2,3cd]pyrene	µg	ND	U/	ND	U/
Isophorone	µg	ND	U/	11	
Naphthalene	µg	0.89	J/	17	
Nitrobenzene	µg	ND	U/	ND	U/
N-Nitrosodi-n-propylamine	µg	ND	U/	ND	U/
N-Nitrosodiphenylamine	µg	ND	U/	ND	U/
Pentachlorophenol	µg	ND	U/	ND	U/
Phenanthrene	µg	ND	U/	ND	U/
Phenol	µg	ND	U/	ND	U/
Pyrene	µg	1.8	b/UB	2.4	b/UB
<b>Total</b>	<b>µg</b>	<b>9.66</b>		<b>45.61</b>	

**Notes:**

µg - Microgram

NC - Not calculated

ND - Non-detect

**Qualifiers:**

J - Result is estimated

U - below reported quantitation limit

b - Detected in the associated Method Blank at a concentration above the Method Detection Limit but less than the routine Reporting Limit.

Jb - Detected in the associated Method Blank at a concentration between the Reporting Limit and Method Detection Limit

UB - Compound or analyte is not detected at or above the indicated concentration due to blank contamination.

UJ - Indicates the compound or analyte was analyzed for but not detected.

The sample detection limit is an estimated value.

\_/\_ - Laboratory data qualifier

/\_ - Data validation qualifier

**Table 3.17**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-13 (SVOCs) - May 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 5/15/08		
		SBPA ISVE	Off-Site ISVE	
1,2,4-Trichlorobenzene	µg	ND	U/	NS
1,2-Dichlorobenzene	µg	4.5	J/	NS
1,3-Dichlorobenzene	µg	ND	U/	NS
1,4-Dichlorobenzene	µg	1.5	J/	NS
2,4,5-Trichlorophenol	µg	ND	U/	NS
2,4,6-Trichlorophenol	µg	ND	U/	NS
2,4-Dichlorophenol	µg	ND	U/	NS
2,4-Dimethylphenol	µg	ND	U/	NS
2,4-Dinitrophenol	µg	ND	U/	NS
2,4-Dinitrotoluene	µg	ND	U/	NS
2,6-Dinitrotoluene	µg	ND	U/	NS
2-Chloronaphthalene	µg	ND	U/	NS
2-Chlorophenol	µg	ND	U/	NS
2-Methylnaphthalene	µg	ND	U/	NS
2-Methylphenol	µg	ND	U/	NS
2-Nitroaniline	µg	ND	U/	NS
2-Nitrophenol	µg	ND	U/	NS
3,3--Dichlorobenzidine	µg	ND	U/	NS
3/4-Methylphenol	µg	ND	U/	NS
3-Nitroaniline	µg	ND	U/	NS
4,6-Dinitro-2-methylphenol	µg	ND	U/	NS
4-Bromophenyl phenyl ether	µg	ND	U/	NS
4-Chloro-3-methylphenol	µg	ND	U/	NS
4-Chloroaniline	µg	ND	U/	NS
4-Chlorophenyl phenyl ether	µg	ND	U/	NS
4-Nitroaniline	µg	ND	U/	NS
4-Nitrophenol	µg	ND	U/UJ	NS
Acenaphthene	µg	ND	U/	NS
Acenaphthylene	µg	ND	U/	NS
Anthracene	µg	ND	U/	NS
Benzo[a]anthracene	µg	ND	U/	NS
Benzo[a]pyrene	µg	ND	U/	NS
Benzo[b]fluoranthene	µg	ND	U/	NS
Benzo[g,h,i]perylene	µg	ND	U/	NS
Benzo[k]fluoranthene	µg	ND	U/	NS
Bis(2-chloroethoxy)methane	µg	ND	U/	NS
Bis(2-chloroethyl)ether	µg	ND	U/	NS
Bis(2-chloroisopropyl)ether	µg	ND	U/	NS
Bis(2-ethylhexyl)phthalate	µg	2.1	J/	NS
Butyl benzyl phthalate	µg	ND	U/	NS
Carbazole	µg	ND	U/UJ	NS
Chrysene	µg	ND	U/	NS
Dibenz[a,h]anthracene	µg	ND	U/	NS
Dibenzofuran	µg	ND	U/	NS
Diethyl phthalate	µg	ND	U/	NS
Dimethyl phthalate	µg	ND	U/	NS
Di-n-butyl phthalate	µg	ND	U/	NS
Di-n-octyl phthalate	µg	ND	U/	NS
Fluoranthene	µg	ND	U/	NS
Fluorene	µg	ND	U/	NS
Hexachlorobenzene	µg	ND	U/	NS
Hexachlorobutadiene	µg	1.1	J/	NS
Hexachlorocyclopentadiene	µg	ND	U/UJ	NS
Hexachloroethane	µg	ND	U/	NS

**Table 3.17**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-13 (SVOCs) - May 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 5/15/08		
		SBPA ISVE	Off-Site ISVE	
Indeno[1,2,3cd]pyrene	µg	ND	U/	NS
Isophorone	µg	ND	U/	NS
Naphthalene	µg	1.2		NS
Nitrobenzene	µg	ND	U/	NS
N-Nitrosodi-n-propylamine	µg	ND	U/	NS
N-Nitrosodiphenylamine	µg	ND	U/	NS
Pentachlorophenol	µg	ND	U/	NS
Phenanthrene	µg	ND	U/	NS
Phenol	µg	ND	U/	NS
Pyrene	µg	0.86	J/	NS
<b>Total</b>	<b>µg</b>	<b>11.26</b>		<b>0</b>

**Notes:**

µg - Microgram

ND - Non-detect

NS - Not sampled

Samples were not collected from the Off-Site ISVE system because ThermOx 2 was not operational.

**Qualifiers:**

J - Result is estimated

U - below reported quantitation limit

UJ - Indicates the compound or analyte was analyzed for but not detected.

The sample detection limit is an estimated value.

/ - Laboratory data qualifier

/ - Data validation qualifier

**Table 3.18**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-13 (SVOCs) - June 2008**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	Sampled 6/27/08			
		SBPA ISVE		Off-Site ISVE	
1,2,4-Trichlorobenzene	µg	ND	U/UJ	ND	U/UJ
1,2-Dichlorobenzene	µg	2.3	J/J	2.6	J/J
1,3-Dichlorobenzene	µg	ND	U/UJ	ND	U/UJ
1,4-Dichlorobenzene	µg	ND	U/UJ	ND	U/UJ
2,4,5-Trichlorophenol	µg	ND	U/UJ	ND	U/UJ
2,4,6-Trichlorophenol	µg	ND	U/UJ	ND	U/UJ
2,4-Dichlorophenol	µg	ND	U/UJ	ND	U/UJ
2,4-Dimethylphenol	µg	ND	U/UJ	ND	U/UJ
2,4-Dinitrophenol	µg	ND	U/UJ	ND	U/UJ
2,4-Dinitrotoluene	µg	ND	U/UJ	ND	U/UJ
2,6-Dinitrotoluene	µg	ND	U/UJ	ND	U/UJ
2-Chloronaphthalene	µg	ND	U/UJ	ND	U/UJ
2-Chlorophenol	µg	ND	U/UJ	ND	U/UJ
2-Methylnaphthalene	µg	ND	U/UJ	ND	U/UJ
2-Methylphenol	µg	ND	U/UJ	ND	U/UJ
2-Nitroaniline	µg	ND	U/UJ	ND	U/UJ
2-Nitrophenol	µg	ND	U/UJ	ND	U/UJ
3,3--Dichlorobenzidine	µg	ND	U/UJ	ND	U/UJ
3/4-Methylphenol	µg	ND	U/UJ	ND	U/UJ
3-Nitroaniline	µg	ND	U/UJ	ND	U/UJ
4,6-Dinitro-2-methylphenol	µg	ND	U/UJ	ND	U/UJ
4-Bromophenyl phenyl ether	µg	ND	U/UJ	ND	U/UJ
4-Chloro-3-methylphenol	µg	ND	U/UJ	ND	U/UJ
4-Chloroaniline	µg	ND	U/UJ	ND	U/UJ
4-Chlorophenyl phenyl ether	µg	ND	U/UJ	ND	U/UJ
4-Nitroaniline	µg	ND	U/UJ	ND	U/UJ
4-Nitrophenol	µg	ND	U/R	ND	U/R
Acenaphthene	µg	ND	U/UJ	ND	U/UJ
Acenaphthylene	µg	ND	U/UJ	ND	U/UJ
Anthracene	µg	ND	U/UJ	ND	U/UJ
Benzo[a]anthracene	µg	ND	U/UJ	ND	U/UJ
Benzo[a]pyrene	µg	ND	U/UJ	ND	U/UJ
Benzo[b]fluoranthene	µg	ND	U/UJ	ND	U/UJ
Benzo[g,h,i]perylene	µg	ND	U/UJ	ND	U/UJ
Benzo[k]fluoranthene	µg	ND	U/UJ	ND	U/UJ
Bis(2-chloroethoxy)methane	µg	ND	U/UJ	ND	U/UJ
Bis(2-chloroethyl)ether	µg	ND	U/UJ	ND	U/UJ
Bis(2-chloroisopropyl)ether	µg	ND	U/UJ	ND	U/UJ
Bis(2-ethylhexyl)phthalate	µg	ND	U/UJ	ND	U/UJ
Butyl benzyl phthalate	µg	ND	U/UJ	ND	U/UJ
Carbazole	µg	ND	U/UJ	ND	U/UJ
Chrysene	µg	ND	U/UJ	ND	U/UJ
Dibenz[a,h]anthracene	µg	ND	U/UJ	ND	U/UJ
Dibenzofuran	µg	ND	U/UJ	ND	U/UJ
Diethyl phthalate	µg	ND	U/UJ	ND	U/UJ
Dimethyl phthalate	µg	ND	U/UJ	ND	U/UJ
Di-n-butyl phthalate	µg	ND	U/UJ	ND	U/UJ
Di-n-octyl phthalate	µg	ND	U/UJ	ND	U/UJ
Fluoranthene	µg	ND	U/UJ	ND	U/UJ
Fluorene	µg	ND	U/UJ	ND	U/UJ
Hexachlorobenzene	µg	ND	U/UJ	ND	U/UJ
Hexachlorobutadiene	µg	ND	U/UJ	ND	U/UJ
Hexachlorocyclopentadiene	µg	ND	U/UJ	ND	U/UJ
Hexachloroethane	µg	ND	U/UJ	ND	U/UJ

**Table 3.18**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-13 (SVOCs) - June 2008**  
**American Chemical Service**  
**Griffith, Indiana**

<b>Compounds</b>	<b>Units</b>	<b>Sampled 6/27/08</b>			
		<b>SBPA ISVE</b>		<b>Off-Site ISVE</b>	
Indeno[1,2,3cd]pyrene	µg	ND	U/UJ	ND	U/UJ
Isophorone	µg	ND	U/UJ	3.8	J/J
Naphthalene	µg	ND	U/UJ	4.5	/J
Nitrobenzene	µg	ND	U/UJ	ND	U/UJ
N-Nitrosodi-n-propylamine	µg	ND	U/UJ	ND	U/UJ
N-Nitrosodiphenylamine	µg	ND	U/UJ	ND	U/UJ
Pentachlorophenol	µg	ND	U/UJ	ND	U/UJ
Phenanthrene	µg	ND	U/UJ	ND	U/UJ
Phenol	µg	ND	U/UJ	ND	U/UJ
Pyrene	µg	ND	U/UJ	ND	U/UJ
<b>Total</b>	<b>µg</b>	<b>2.30</b>		<b>10.90</b>	

**Notes:**

µg - Microgram

NC - Not calculated

ND - Non-detect

**Qualifiers:**

J - Result is estimated

U - below reported quantitation limit

R - Quality control indicates the data is not usable.

UJ - Indicates the compound or analyte was analyzed for but not detected.

The sample detection limit is an estimated value.

/ - Laboratory data qualifier

/\_ - Data validation qualifier

**Table 3.19**  
**Off-Site In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data**  
**Second Quarter 2008**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Well ID	Date	Flow (cfm)	Vac ( $\text{" H}_2\text{O}$ )	VOCs (ppm)	Comments
SVE-01	4/24/2008	Water	80.0	25	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	Water	47.0	0	
SVE-02	4/24/2008	Water	91.5	8	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	11	47.5	0.1	
SVE-03	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	7	47.0	0.1	
SVE-04	4/24/2008	Water	82.0	17	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	10	47.5	0.1	
SVE-05	4/24/2008	Water	84.5	11	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	18	47.0	0	
SVE-06	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	10	47.0	0.1	
SVE-07	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	52	47.0	0.2	
SVE-08	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	Water	47.0	0.3	
SVE-09	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	170	47.0	0.3	
SVE-10	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	19	47.5	0.6	
SVE-11	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	176	46.5	0.5	
SVE-12	4/24/2008	Water	65.0	30	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	9	47.0	0.2	
SVE-13	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	16	45.0	185	

**Table 3.19**  
**Off-Site In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data**  
**Second Quarter 2008**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Well ID	Date	Flow (cfm)	Vac ( $\text{" H}_2\text{O}$ )	VOCs (ppm)	Comments
SVE-14	4/24/2008	Water	87.5	475	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	7	44.0	86	
SVE-15	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	Water	45.5	110	
SVE-16	4/24/2008	291	88.0	165	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	77	45.0	85	
SVE-17	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	Water	44.5	Water	
SVE-18	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	Water	45.0	Water	
SVE-19	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	12	45.5	100	
SVE-20	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	Water	45.0	90	
SVE-21	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	101	44.0	65	
SVE-22	4/24/2008	122	88.5	230	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	80	45.0	225	
SVE-23	4/24/2008	23	37.0	295	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	38	22.5	170	
SVE-24	4/24/2008	155	79.5	250	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	135	43.5	242	
SVE-25	4/24/2008	282	87.0	330	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	167	44.0	175	
SVE-26	4/24/2008	8	89.5	300	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	15	45.5	140	

**Table 3.19**  
**Off-Site In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data**  
**Second Quarter 2008**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Well ID	Date	Flow (cfm)	Vac ( $\text{" H}_2\text{O}$ )	VOCs (ppm)	Comments
SVE-27	4/24/2008	218	87.5	110	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	186	45.0	143	
SVE-28	4/24/2008	Water	87.5	175	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	25	45.0	102	
SVE-29	4/24/2008	Water	85.5	251	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	44	44.0	122	
SVE-30	4/24/2008	3	85.5	105	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	14	43.5	210	
SVE-31	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	14	43.0	244	
SVE-32	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	15	45.0	230	
SVE-33	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	11	44.5	150	
SVE-34	4/24/2008	Water	88.5	300	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	Water	45.0	135	
SVE-35	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	Water	43.0	265	
SVE-36	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	23	45.0	450	
SVE-37	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	Water	45.0	Water	
SVE-38	4/24/2008	56	85.0	335	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	18	43.5	595	
SVE-39	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	Water	44.5	380	

**Table 3.19**  
**Off-Site In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data**  
**Second Quarter 2008**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Well ID	Date	Flow (cfm)	Vac ( $\text{" H}_2\text{O}$ )	VOCs (ppm)	Comments
SVE-40	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	188	44.0	575	
SVE-41	4/24/2008	354	83.0	162	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	191	43.0	380	
SVE-42	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	11	44.5	350	
K-P Header 1	4/24/2008	-	91.5	60	
	5/29/2008	-	NM	NM	System Down
	6/25/2008	-	47.5	31	
K-P-Header 2	4/24/2008	-	91.5	42	
	5/29/2008	-	NM	NM	System Down
	6/25/2008	-	47.0	30	
OFCA Header 1	4/24/2008	-	87.5	210	
	5/29/2008	-	NM	NM	System Down
	6/25/2008	-	45.0	29	
OFCA Header 2	4/24/2008	-	88.0	240	
	5/29/2008	-	NM	NM	System Down
	6/25/2008	-	45.0	85	
OFCA Header 3	4/24/2008	-	90.0	142	
	5/29/2008	-	NM	NM	System Down
	6/25/2008	-	46.5	102	

**Notes:**

"-" = data not collected

"Water" - water present in vapor stream, preventing data collection

NM = Not measured, reason given in comments column

Flow is measured using a VelociCalc 8384 flow meter.

Vacuum pressures are measured with an Extech Manometer Model 407910.

**Table 3.20**  
**Off-Site In-Situ Soil Vapor Extraction (ISVE) System Header Monitoring Data**  
**Second Quarter 2008**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Date	KP1 Line Press (psia)	KP1 Flow (scfm)	KP1 Vac ( <sup>"</sup> H <sub>2</sub> O)	KP2 Line Press (psia)	KP2 Flow (scfm)	KP2 Vac ( <sup>"</sup> H <sub>2</sub> O)	OFCA1 Vac ( <sup>"</sup> H <sub>2</sub> O)	OFCA2 Vac ( <sup>"</sup> H <sub>2</sub> O)	OFCA3 Vac ( <sup>"</sup> H <sub>2</sub> O)	Dilution Flow (cfm)	Blower Inf Line Press (psia)	Blower Inf Flow (scfm)
4/24/2008	11.5	0	91.5	11.5	0	91.5	87.5	88	90	0	11.4	488
5/29/2008	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
6/25/2008	13.1	0	47.5	13.1	0	47	45	45	46.5	0	12.9	727

Date	Blower Inf Vac ( <sup>"</sup> H <sub>2</sub> O)	Blower Inf VOC (ppm)	Blower Inf Temp. ( <sup>°</sup> F)	Blower Eff Line Press (psia)	Blower Eff Flow (scfm)	Blower Eff Press ( <sup>"</sup> H <sub>2</sub> O)	Blower Eff VOC (ppm)	Blower Eff Temp. ( <sup>°</sup> F)	Filter Diff Press ( <sup>"</sup> H <sub>2</sub> O)	Ambient Temperature ( <sup>°</sup> F)	Barometric Pressure ( <sup>"</sup> Hg)	Humidity (%)
4/24/2008	95.5	-	58	15.6	747	20.5	250	144	7.0	63	30.15	30%
5/29/2008	NM	NM	NM	NM	NM	NM	NM	NM	NM	71	30.26	62%
6/25/2008	53	-	68	15.8	762	27.0	248	128	8.5	68	30.08	94%

**Notes:**

"-" = Data not collected

NM = Not measured for specific date due to system being down

cfm = Cubic feet per minute

<sup>"</sup>H<sub>2</sub>O = Inches of water

ppm = Parts per million

VOCs = Volatile organic compounds

psia = Pounds per square inch, atmosphere

<sup>"</sup>Hg = Inches of mercury

<sup>°</sup>F = Degrees Fahrenheit

**Table 3.21**  
**SBPA In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data**  
**Second Quarter 2008**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

<b>Well ID</b>	<b>Date</b>	<b>Flow (cfm)</b>	<b>Vac (<math>\text{" H}_2\text{O}</math>)</b>	<b>VOCs (ppm)</b>	<b>Comments</b>
SVE-43	4/24/2008	4	69.5	NM	System went down
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	25	42.5	120	
SVE-44	4/24/2008	39	-	-	Air injection well
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	47	-	-	Air injection well
SVE-45	4/24/2008	41	69.5	NM	System went down
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	26	43.0	60	
SVE-46	4/24/2008	1	69.0	NM	System went down
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	8	43.0	116	
SVE-47	4/24/2008	5	69.5	NM	System went down
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	6	43.0	124	
SVE-48	4/24/2008	14	69.5	NM	System went down
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	29	42.5	190	
SVE-49	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	-	-	-	
SVE-50	4/24/2008	9	69.5	NM	System went down
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	36	42.5	115	
SVE-51	4/24/2008	6	69.0	NM	System went down
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	23	42.5	75	
SVE-52	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	-	-	-	
SVE-53	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	-	-	-	
SVE-54	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	-	-	-	
SVE-55	4/24/2008	31	69.0	NM	System went down
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	21	42.0	184	
SVE-56	4/24/2008	34	69.5	NM	System went down
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	30	42.5	165	
SVE-57	4/24/2008	18	69.5	NM	System went down
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	11	42.5	150	
SVE-58	4/24/2008	15	70.5	162	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	28	46.0	209	

**Table 3.21**  
**SBPA In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data**  
**Second Quarter 2008**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Well ID	Date	Flow (cfm)	Vac ( $\text{" H}_2\text{O}$ )	VOCs (ppm)	Comments
SVE-59	4/24/2008	9	-	-	Air injection well
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	9	-	-	Air injection well
SVE-60	4/24/2008	26	71.0	454	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	16	46.0	105	
SVE-61	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	-	-	-	
SVE-62	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	-	-	-	
SVE-63	4/24/2008	13	0.0	NM	System went down
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	9	41.0	110	
SVE-64	4/24/2008	11	69.5	NM	System went down
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	9	43.0	145	
SVE-65	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	-	-	-	
SVE-66	4/24/2008	4	69.0	NM	System went down
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	18	42.5	169	
SVE-67	4/24/2008	76	68.5	NM	System went down
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	47	42.0	145	
SVE-68	4/24/2008	32	69.0	NM	System went down
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	Water	42.5	130	
SVE-69	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	-	-	-	
SVE-70	4/24/2008	49	65.5	100	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	37	45.5	211	
SVE-71	4/24/2008	19	71.0	161	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	27	46.0	250	
SVE-72	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	-	-	-	
SVE-73	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	-	-	-	
SVE-74	4/24/2008	28	71.0	600	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	25	46.5	140	

**Table 3.21**  
**SBPA In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data**  
**Second Quarter 2008**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Well ID	Date	Flow (cfm)	Vac (" H <sub>2</sub> O)	VOCs (ppm)	Comments
SVE-75	4/24/2008	58	69.0	NM	System went down
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	81	42.0	165	
SVE-76	4/24/2008	25	69.0	NM	System went down
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	38	42.5	220	
SVE-77	4/24/2008	28	-	-	Air injection well
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	30	-	-	Air injection well
SVE-78	4/24/2008	9	69.5	NM	System went down
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	Water	42.5	175	
SVE-79	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	-	-	-	
SVE-80	4/24/2008	10	-	-	Air injection well
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	8	-	-	Air injection well
SVE-81	4/24/2008	9	71.0	151	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	22	46.0	120	
SVE-82	4/24/2008	2	71.0	133	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	11	45.5	230	
SVE-83	4/24/2008	12	71.0	350	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	28	46.0	247	
SVE-84	4/24/2008	22	-	-	Air injection well
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	20	-	-	Air injection well
SVE-85	4/24/2008	8	71.0	450	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	12	46.0	245	
SVE-86	4/24/2008	3	71.0	182	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	14	45.5	240	
SVE-87	4/24/2008	6	71.5	173	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	14	46.0	285	
SVE-88	4/24/2008	-	-	-	
	5/29/2008	NM	NM	NM	System Down
	6/25/2008	-	-	-	

**Notes:**

"-" = data not collected

"Water" - water present in vapor stream, preventing data collection

NM = Not measured, reason given in comments column

Flow is measured using a VelociCalc 8384 flow meter.

Vacuum pressures are measured with an Extech Manometer Model 407910.

**Table 3.22**  
**SBPA In-Situ Soil Vapor Extraction (ISVE) System Header Monitoring Data**  
**Second Quarter 2008**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Date	North Header			South Header			Dilution Flow (cfm)	Blower Inf Line Press (psia)	Blower Inf Flow (scfm)	Blower Inf Vac (" H <sub>2</sub> O)	Blower Inf VOC (ppm)
	Line Press (psia)	Flow (scfm)	Vac (" H <sub>2</sub> O)	Line Press (psia)	Flow (scfm)	Vac (" H <sub>2</sub> O)					
4/24/2008	12.3	0	70.0	12.2	0	71.0	0	11.2	485	100	-
5/29/2008	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
6/25/2008	13.1	0	45.0	13.1	0	46.0	0	11.1	0	100	-

Date	Blower Inf Temp. (°F)	Blower Eff Line Press (psia)	Blower Eff Flow (scfm)	Blower Eff Press (" H <sub>2</sub> O)	Blower Eff VOC (ppm)	Blower Eff Temp. (°F)	Filter Diff Press (" H <sub>2</sub> O)	Ambient Temperature (°F)	Barometric Pressure ("Hg)	Humidity (%)
4/24/2008	55	16.5	939	48.0	-	150	8.0	69	30.11	25%
5/29/2008	NM	NM	NM	NM	NM	NM	NM	71	30.26	62%
6/25/2008	56	16.5	1090	48.0	-	141	9.0	72	30.00	83%

**Notes:**

"-" = Data not collected

NM = Not measured for specific date due to system being down

cfm = Cubic feet per minute

" H<sub>2</sub>O = Inches of water

ppm = Parts per million

VOCs = Volatile organic compounds

psia = Pounds per square inch, atmosphere

" Hg = Inches of mercury

°F = Degrees Fahrenheit

**Table 6.1**  
**Water Table Elevations Across the Barrier Wall and Near the PGCS - Second Quarter 2008**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

**Upper Aquifer Wells**

Well Designation	Reference Points			6/6/2008		Notes	Difference Across Barrier Wall (if applicable) <sup>1</sup>
	East	North	TOIC	Level	Elevation		
MW11	6377	7329	640.47	4.85	635.62		n/a
MW13	5050	7814	634.08	2.87	631.21		n/a
MW37	5395	7976	636.78	4.67	632.11		n/a
MW46	4526	7424	633.32	2.43	630.89		n/a
MW48	5669	7814	636.36	3.98	632.38		n/a
MW49	5551	7650	637.00	4.46	632.54		n/a

**Staff Gauges & Piezometers**

Well Designation	Reference Points			6/6/2008		Notes	Difference Across Barrier Wall (if applicable) <sup>1</sup>
	East	North	TOSG	Level	Elevation		
P23	4689	7018	636.18	5.35	630.83		n/a
P25	5131	7510	633.33	1.67	631.66		n/a
P26	4764	7309	634.23	3.48	630.75		n/a
P27	4904	7020	639.70	8.85	630.85		n/a
P28	5883	7486	644.53	10.29	634.24		n/a
P32	5746	7026	642.32	11.28	631.04		n/a
P40	5931	7241	638.77	3.99	634.78		n/a
P41	5663	7377	637.23	3.23	634.00		n/a
P49	5145	6949	638.98	10.79	628.19		n/a
SG13	4819	7209	631.53	5.06	630.59	TOSG = 6.0' mark	n/a

**PGCS Piezometer Sets**

Well Designation	Reference Points			6/6/2008		Notes	Difference Across Barrier Wall (if applicable) <sup>1</sup>
	East	North	TOC	Level	Elevation		
P81	5577	7581	636.19	3.87	632.32		n/a
P82	5577	7572	635.77	3.75	632.02		n/a
P83	5577	7561.6	635.95	3.31	632.64		n/a
P84	5322	7603	634.35	2.64	631.71		n/a
P85	5326	7594	634.08	2.31	631.77		n/a
P86	5329	7585	634.41	2.75	631.66		n/a
P87	5121	7466	633.88	3.06	630.82		n/a
P88	5130	7460	633.90	2.74	631.16		n/a
P89	5137	7454	634.02	2.92	631.10		n/a
P90	4881	7152	634.45	3.74	630.71		n/a
P91	4889	7145	634.59	3.97	630.62		n/a
P92	4896	7138.1	633.87	3.29	630.58		n/a

**Table 6.1**  
**Water Table Elevations Across the Barrier Wall and Near the PGCS - Second Quarter 2008**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

**BWES Water Level and Piezometer Pairs**

Well Designation	Reference Points			6/6/2008		Notes	Difference Across Barrier Wall (if applicable) <sup>1</sup>
	East	North	TOC	Level	Elevation		
P93R - Outside BW	n/a	n/a	639.05	7.74	631.31	Installed Nov. 2004	-3.89
P94R - Inside BW	n/a	n/a	640.99	13.57	627.42	Installed Nov. 2004	
P95 - Outside BW	5146	6532	638.58	3.89	634.69		-10.73
P96 - Inside BW	5156	6537	641.26	17.30	623.96		
P105 - Outside BW	5885	6678	638.86	2.56	636.30		-8.80
P106 - Inside BW	5871	6685	638.10	10.60	627.50		
P107 - Outside BW	5766	7339	637.42	3.06	634.36		-3.32
P108 - Inside BW	5757	7324	638.13	7.09	631.04		
P109 - Outside BW	5740	6387	644.30	8.37	635.93		-9.15
P110 - Inside BW	5705	6382	647.68	20.90	626.78		
P111 - Outside BW	5551	5950	650.03	14.90	635.13		-8.51
P112 - Inside BW	5525	5960	653.36	26.74	626.62		
P113 - Inside BW	5309	5693	657.53	30.26	627.27		-7.02
ORCPZ102 - Outside BW	5331	5612	652.47	18.18	634.29		
P114 - Inside BW	5035	5729	653.69	25.90	627.79		-6.66
P115 - Outside BW	4970	5708	652.50	18.05	634.45		
P116 - Inside BW	5031	6087	646.26	18.74	627.52		-6.41
P117 - Outside BW	5014	6087	643.93	10.00	633.93		
P118 - Inside BW	5402	6539	645.52	18.87	626.65		n/a

**Notes:**

All depth measurements and elevations are in units of feet.

Elevation is in feet above mean sea level.

TOIC = top of inner casing

TOC = top of casing

TOSG = top of staff gauge

n/a = not applicable

<sup>1</sup> A positive value indicates that the water level is higher inside the barrier wall. A negative value indicates that the water level is lower inside the barrier wall.

**Table 6.2**  
**Water Levels Inside Barrier Wall - Second Quarter 2008**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Date	On-Site Area					
	Target Level	P-29	P-31	P-32	P-36	P-49
4/3/2008	629.0	630.4	630.9	629.7	624.9	627.7
5/5/2008	629.0	630.4	630.9	631.1	624.9	627.7
6/13/2008	629.0	630.4	630.9	631.1	625.8	627.7
6/27/2008	629.0	630.4	630.9	630.6	624.9	627.7

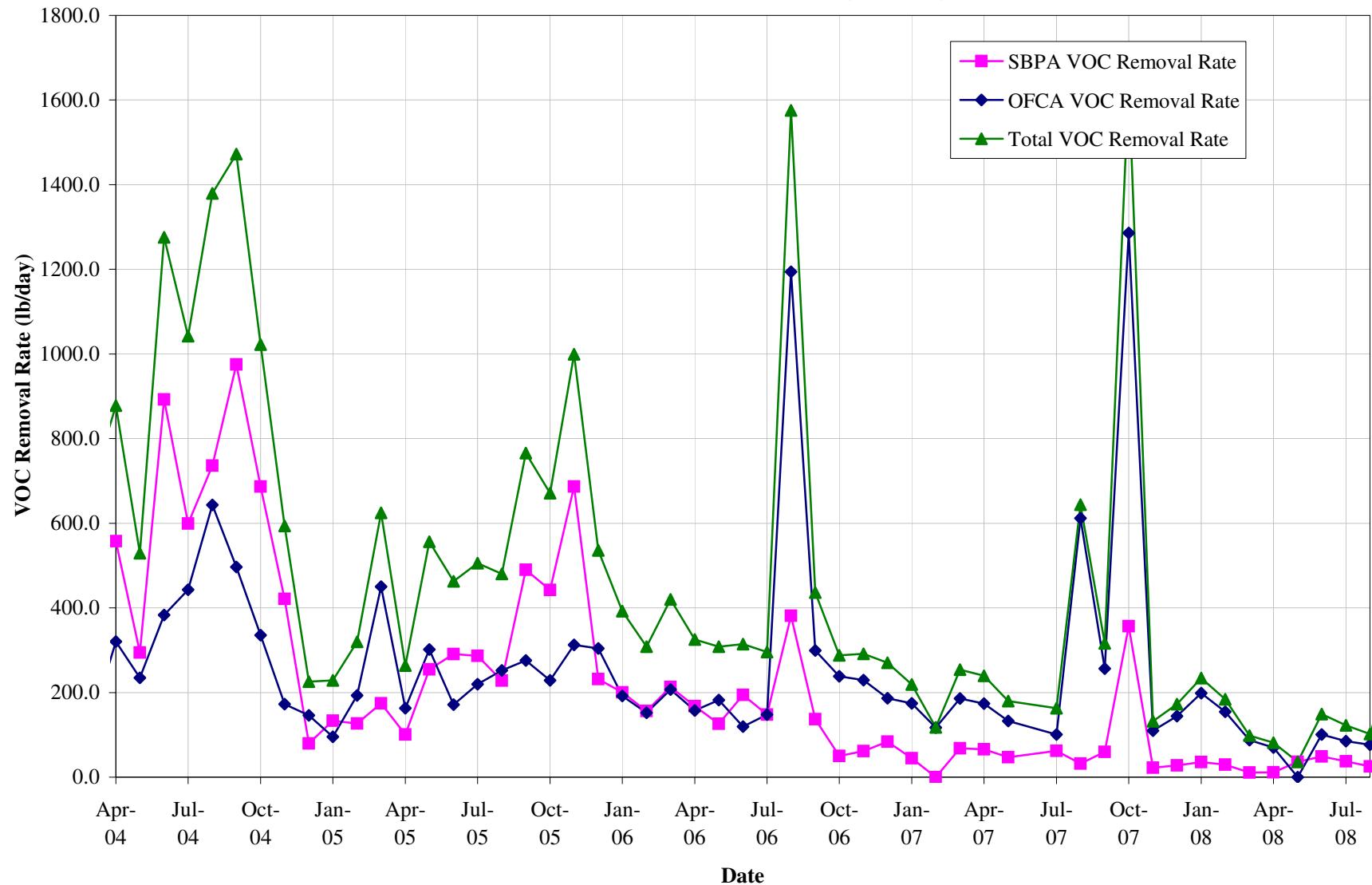
Date	Off-Site Area										
	Target Level	P-96	P-110	P-112	P-113	P-114	P-116	P-118	AS-7	AS-8	AS-9
4/3/2008	626.0	621.0	626.7	626.5	626.9	627.4	627.0	626.5	NM	NM	NM
5/5/2008	626.0	621.3	627.0	626.4	627.2	627.8	627.7	626.8	NM	NM	NM
5/22/2008	626.0	NM	627.37	627.12	627.23						
6/13/2008	626.0	621.3	627.1	626.6	627.1	627.7	627.4	627.5	NM	NM	NM
6/24/2008	626.0	NM	627.36	627.08	627.00						
6/27/2008	626.0	622.9	626.9	626.4	626.6	626.9	626.4	626.5	NM	NM	NM

**Notes:**

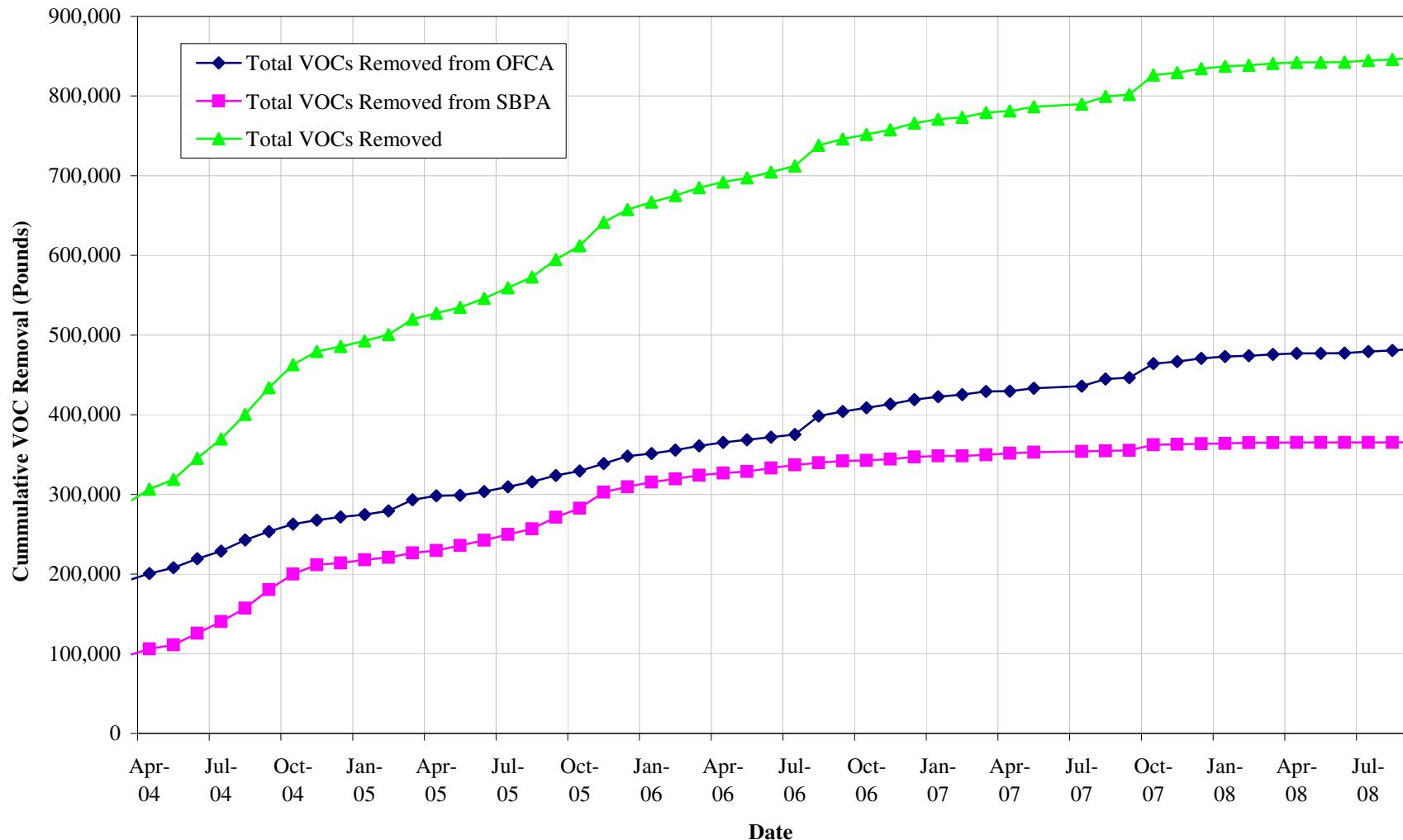
All water level elevations are in feet AMSL.

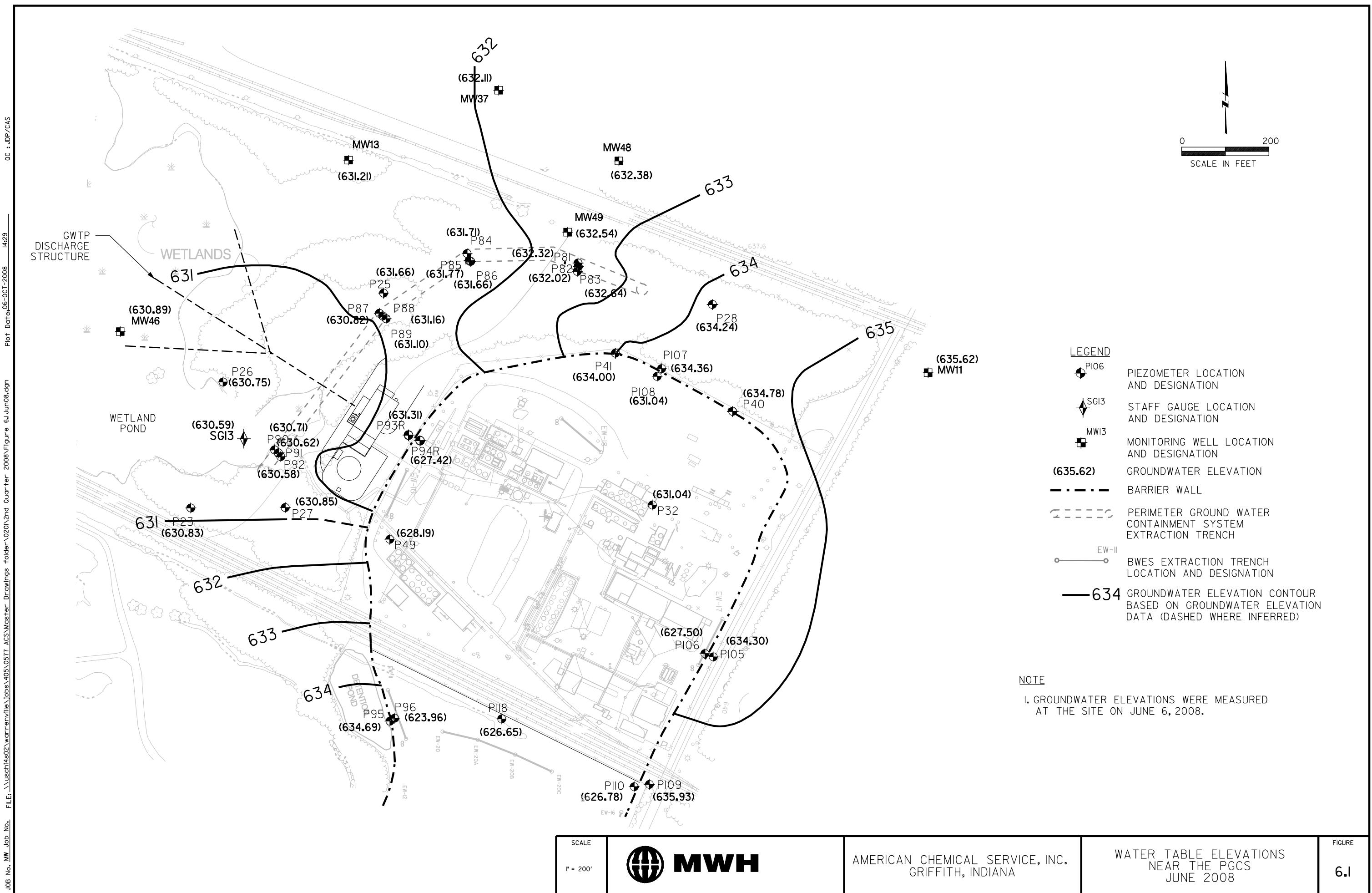
## **FIGURES**

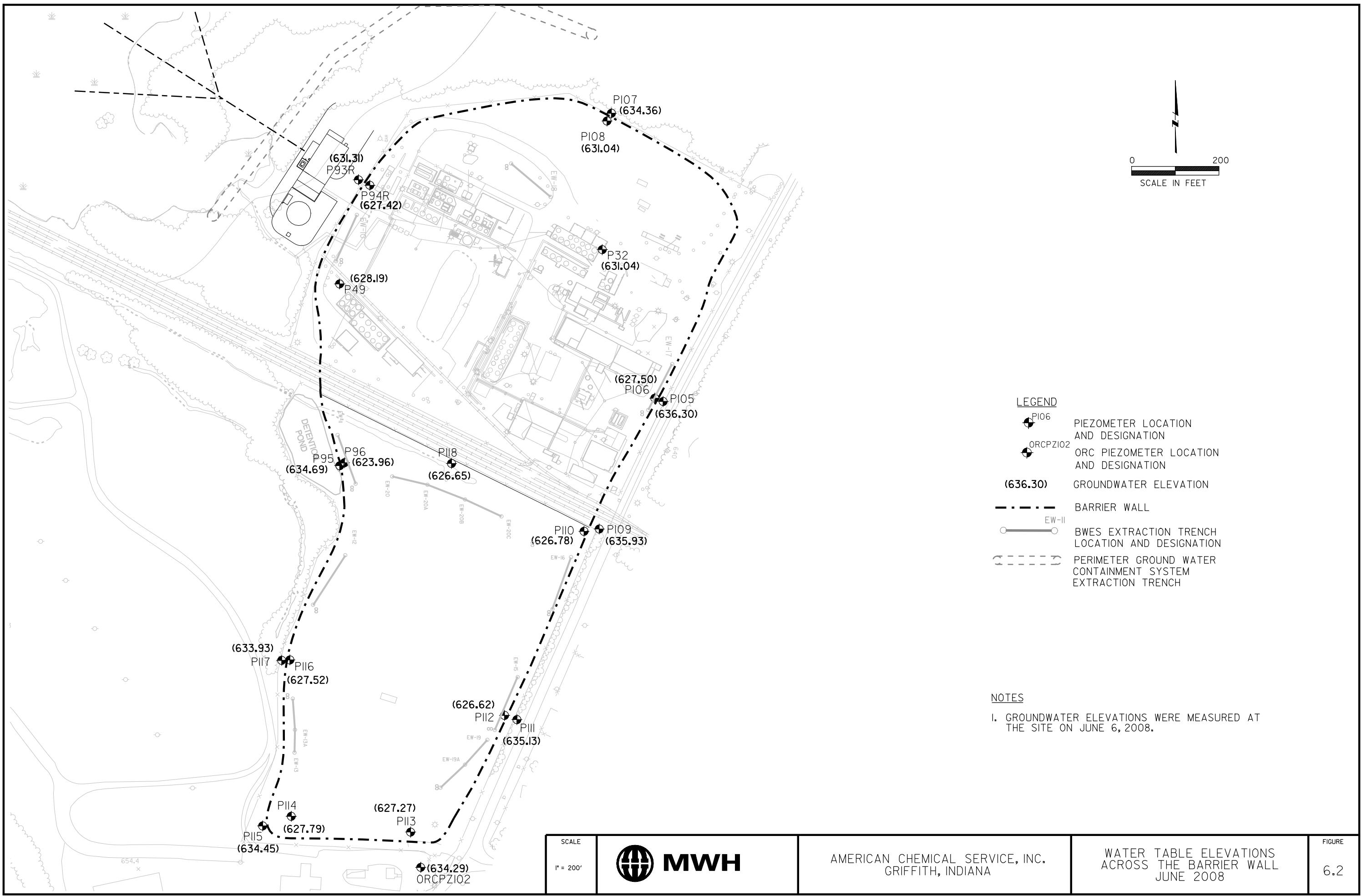
**Figure 3.1**  
**VOC Removal Rate**  
**American Chemical Services NPL Site, Griffith, IN**



**Figure 3.2**  
**Total VOCs Removed**  
**American Chemical Services NPL Site, Griffith, IN**





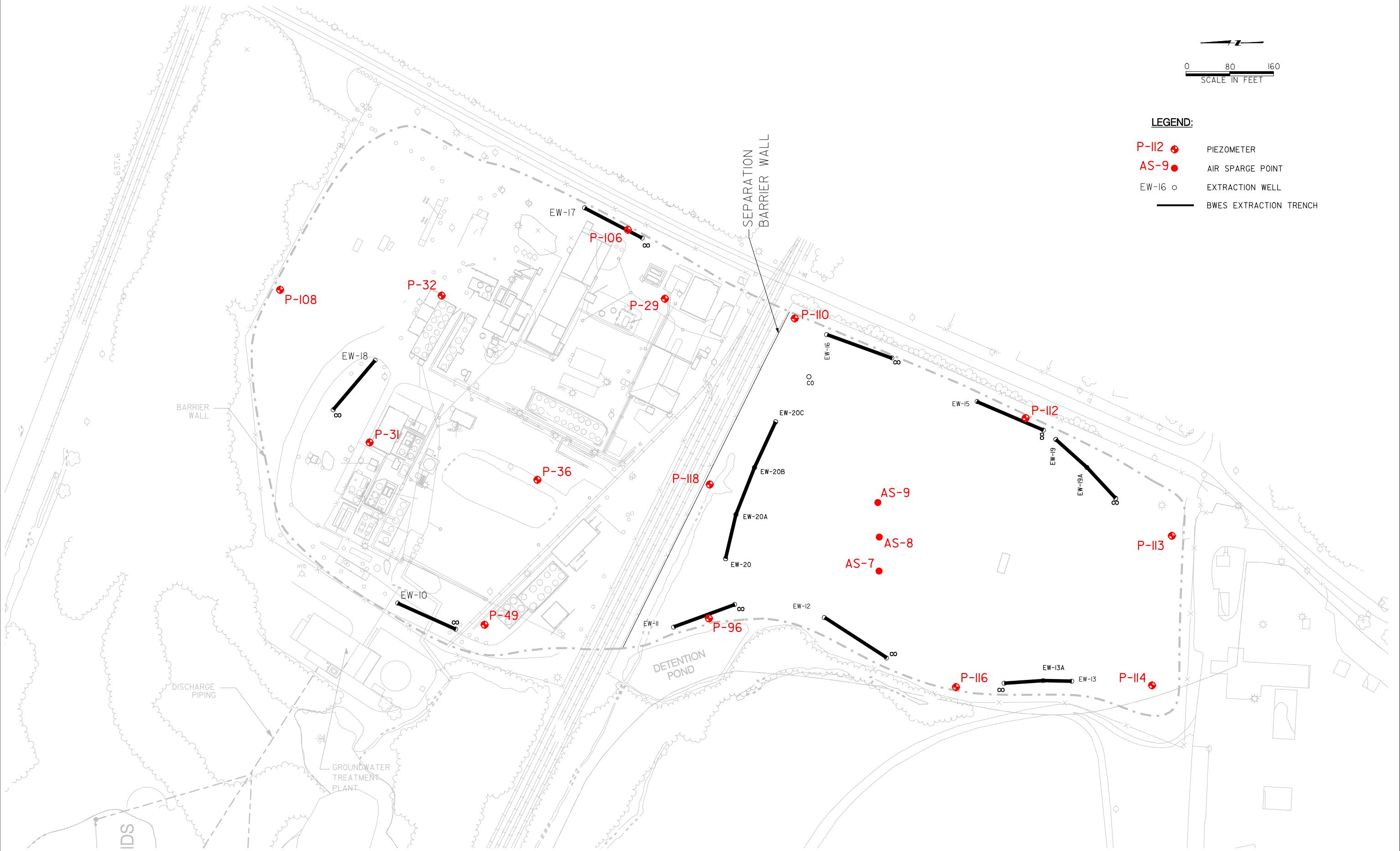


0 80 160  
SCALE IN FEET

**LEGEND:**

- P-II2 • PIEZOMETER
- AS-9 • AIR SPARGE POINT
- EW-16 ○ EXTRATION WELL
- BWES EXTRACTION TRENCH

File: J:\405\0577 ACS\master cad files\0201\3rd quarter 2006\figure63.dwg | Date: 19-MAR-2007 | Time: 11:34



REV	DATE	BY	DESCRIPTION

AS SHOWN

SCALE

DESIGNED RAA

DRAWN CAD

CHECKED \_\_\_\_\_

SUBMITTED BY

ROBERT A. ADAMS

(PROJECT MANAGER)

LICENSE NO. \_\_\_\_\_

DATE \_\_\_\_\_

(COMPANY OFFICER)

LICENSE NO. \_\_\_\_\_

DATE \_\_\_\_\_



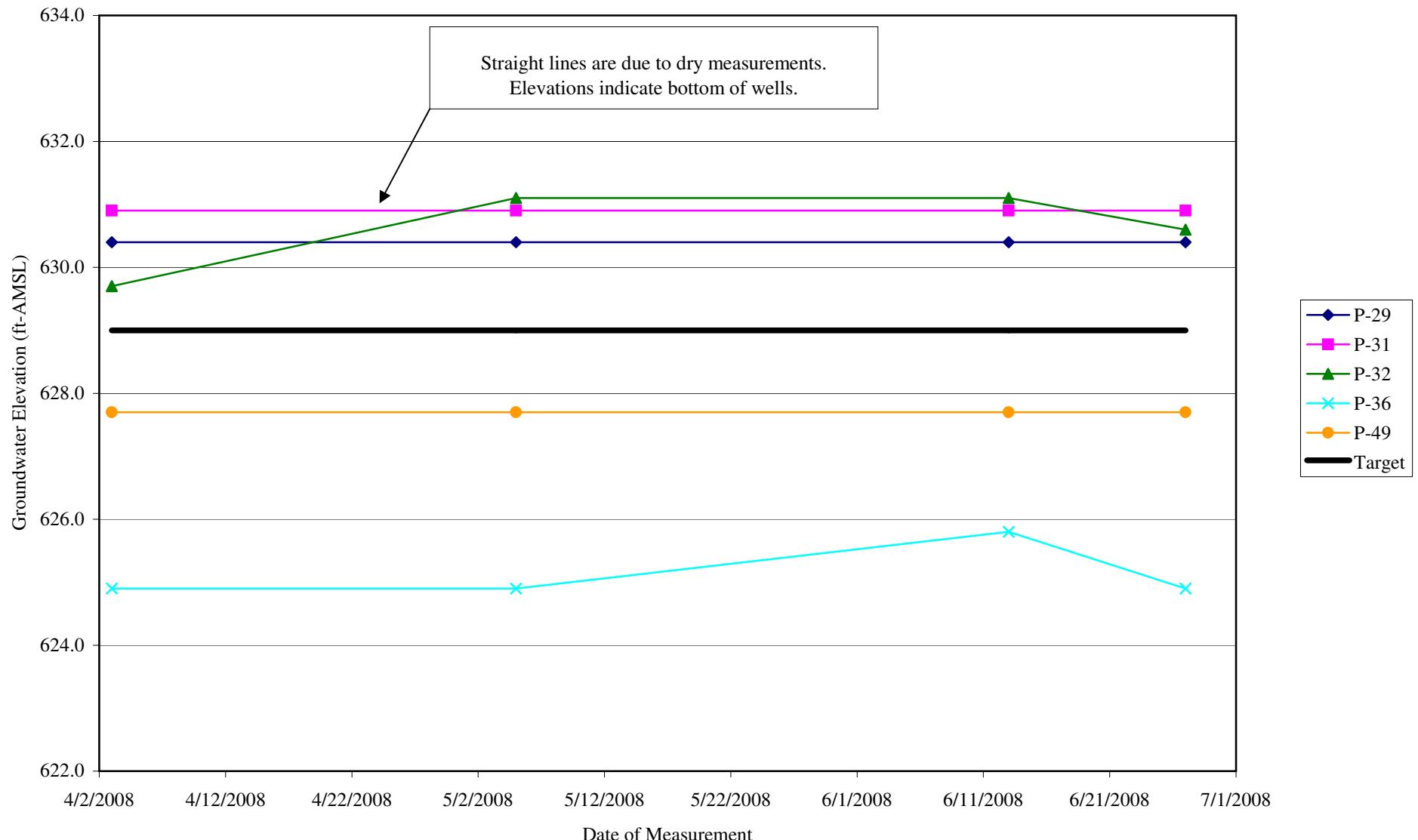
**MWH**  
MONTGOMERY WATSON HARZA

AMERICAN CHEMICAL SERVICE SUPERFUND SITE  
GRIFFITH, INDIANA

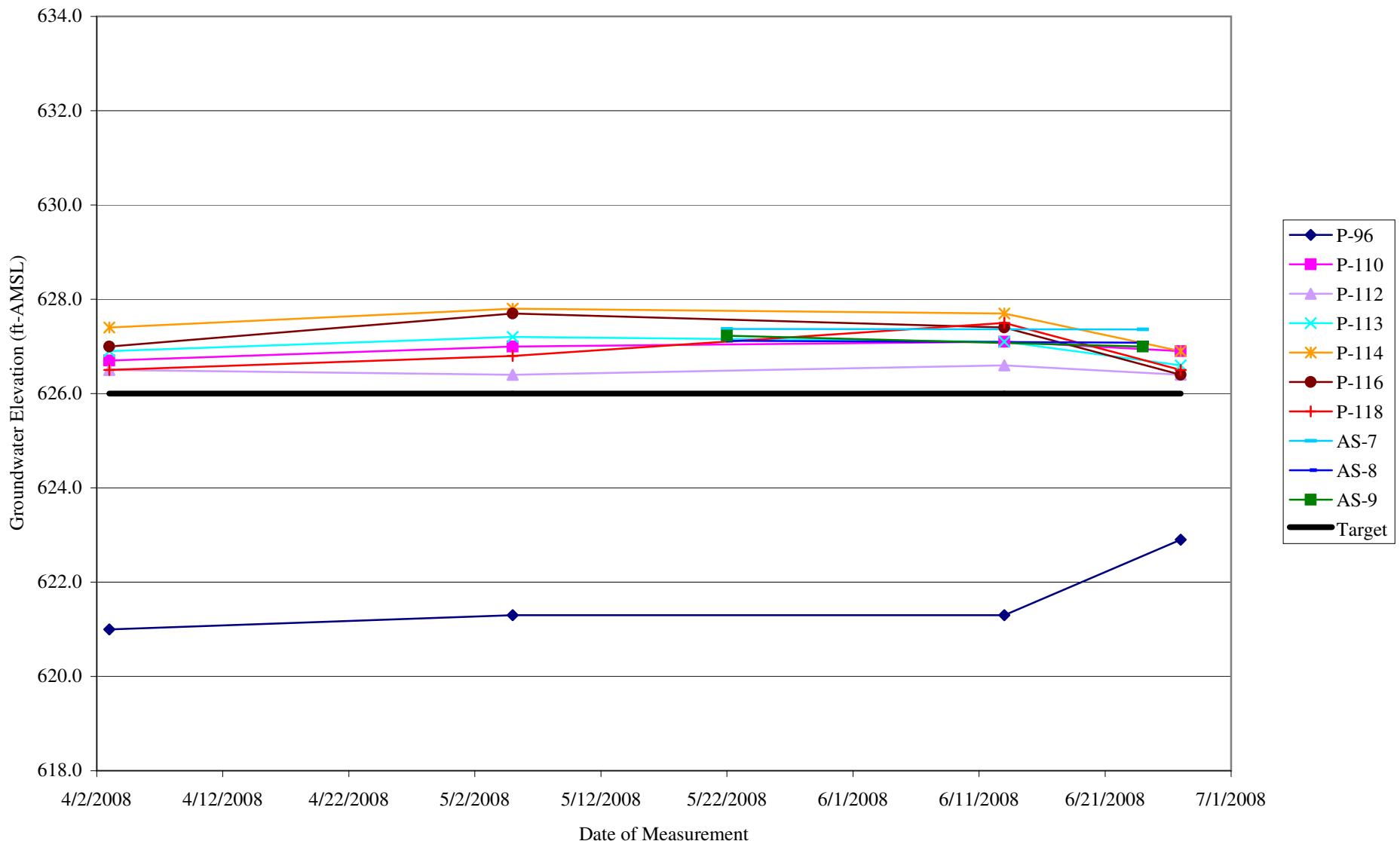
GROUNDWATER LEVEL MEASURING LOCATIONS

FIGURE  
6.3

**Figure 6.4**  
**Water Level Trends Inside the Barrier Wall (Still Bottoms Pond Area)**  
**ACS NPL Site**  
**Griffith, Indiana**



**Figure 6.5**  
**Water Level Trends Inside the Barrier Wall (Off-Site Area)**  
**ACS NPL Site**  
**Griffith, Indiana**



**APPENDIX A**

**EFFLUENT ANALYTICAL DATA**

**April 11, 2008 Compliance Sample  
Laboratory Results**

# Microbac

## ANALYTICAL RESULTS

Date: Sunday, April 20, 2008

<b>Client:</b>	MWH, Inc.	<b>Work Order / ID:</b>	ME0804518-01
<b>Client Project:</b>	April 2008 - Quarterly GWTP / ACS	<b>Collection Date:</b>	04/11/08 13:55
<b>Client Sample ID:</b>	Effluent	<b>Date Received:</b>	04/11/08 14:50
<b>Sample Description:</b>			
<b>Sample Matrix:</b>	Aqueous		

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

PCB'S	Method: SW8082			Prep Date/Time: 04/16/08 08:23 Analyst: JLW				
Aroclor 1016	A	ND	0.00012	0.00053		mg/L	1	04/18/08 04:38
Aroclor 1221	A	ND	0.00053	0.00053		mg/L	1	04/18/08 04:38
Aroclor 1232	A	ND	0.00053	0.00053		mg/L	1	04/18/08 04:38
Aroclor 1242	A	ND	0.00010	0.00053		mg/L	1	04/18/08 04:38
Aroclor 1248	A	ND	0.00015	0.00053		mg/L	1	04/18/08 04:38
Aroclor 1254	A	ND	0.00018	0.00053		mg/L	1	04/18/08 04:38
Aroclor 1260	A	ND	0.00012	0.00053		mg/L	1	04/18/08 04:38
Surr: Tetrachloro-m-xylene	S	75.0		0	7.58-153	%REC	1	04/18/08 04:38
Surr: Decachlorobiphenyl	S	85.0		0	15.4-169	%REC	1	04/18/08 04:38

TOTAL METALS	Method: SW6010B			Prep Date/Time: 04/14/08 08:00 Analyst: AVC				
Arsenic	A	ND	0.0025	0.010		mg/L	1	04/15/08 15:33
Beryllium	A	ND	0.00000000014	0.0010		mg/L	1	04/15/08 15:33
Cadmium	A	ND	0.00030	0.0020		mg/L	1	04/15/08 15:33
Manganese	A	0.087	0.00030	0.0020		mg/L	1	04/15/08 15:33
Selenium	A	0.0077	0.0053	0.030	J	mg/L	1	04/15/08 15:33
Thallium	A	ND	0.0043	0.050		mg/L	1	04/15/08 15:33
Zinc	A	ND	0.0073	0.020		mg/L	1	04/15/08 15:33

TOTAL METALS	Method: SW7470A			Prep Date/Time: 04/15/08 08:05 Analyst: SAA				
Mercury	A	ND	0.000030	0.00020		mg/L	1	04/15/08 11:08

SEMIVOLATILE ORGANICS	Method: SW8270C			Prep Date/Time: 04/15/08 06:15 Analyst: BEM				
Bis(2-ethylhexyl)phthalate	A	0.00065	0.00055	0.0050	J	mg/L	1	04/16/08 00:40
Bis(2-chloroethyl)ether	A	ND	0.00045	0.0050		mg/L	1	04/16/08 00:40
Isophorone	A	ND	0.00050	0.0050		mg/L	1	04/16/08 00:40
3/4-Methylphenol	A	ND	0.00040	0.0050		mg/L	1	04/16/08 00:40
Pentachlorophenol	A	ND	0.00065	0.025		mg/L	1	04/16/08 00:40
Surr: Nitrobenzene-d5	S	66.6	0	10-121		%REC	1	04/16/08 00:40
Surr: 2-Fluorobiphenyl	S	59.5	0	10-109		%REC	1	04/16/08 00:40
Surr: Terphenyl-d14	S	50.8	0	10-130		%REC	1	04/16/08 00:40
Surr: Phenol-d5	S	24.5	0	10-100		%REC	1	04/16/08 00:40
Surr: 2-Fluorophenol	S	34.8	0	10-84.7		%REC	1	04/16/08 00:40
Surr: 2,4,6-Tribromophenol	S	73.3	0	10-120		%REC	1	04/16/08 00:40

VOC'S	Method: SW8260B			Prep Date/Time:				Analyst: MLT
Acetone	A	0.0029	0.0020	0.0050	J	mg/L	1	04/16/08 16:08

0.0050 UBJ

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

1370/08

## ANALYTICAL RESULTS

Date: Sunday, April 20, 2008

Client: MWH, Inc.  
 Client Project: April 2008 - Quarterly GWTP / ACS  
 Client Sample ID: Effluent  
 Sample Description:  
 Sample Matrix: Aqueous

Work Order / ID: ME0804518-01  
 Collection Date: 04/11/08 13:55  
 Date Received: 04/11/08 14:50

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

VOC'S		Method:	SW8260B		Prep Date/Time:			Analyst: MLT
Benzene	A	ND	0.00030	0.0010	mg/L	1	04/16/08 16:08	MLT
2-Butanone	A	ND	0.0015	0.0020	mg/L	1	04/16/08 16:08	
Chloromethane	A	ND	0.00030	0.0020	mg/L	1	04/16/08 16:08	
1,1-Dichloroethane	A	0.0014	0.00030	0.0010	mg/L	1	04/16/08 16:08	
cis-1,2-Dichloroethene	A	0.0035	0.00040	0.0010	mg/L	1	04/16/08 16:08	
Ethylbenzene	A	ND	0.00020	0.0010	mg/L	1	04/16/08 16:08	
4-Methyl-2-Pentanone	A	0.0012	0.00080	0.0010	mg/L	1	04/16/08 16:08	
Methylene chloride	A	ND	0.00070	0.0020	mg/L	1	04/16/08 16:08	
Tetrachloroethylene	A	ND	0.00040	0.0010	mg/L	1	04/16/08 16:08	
Trichloroethylene	A	ND	0.00030	0.0010	mg/L	1	04/16/08 16:08	
Vinyl chloride	A	0.00041	0.00040	0.0020	J	mg/L	1	04/16/08 16:08
1,4-Dichlorobenzene	A	ND	0.00020	0.0010	mg/L	1	04/16/08 16:08	
Sur: 4-Bromofluorobenzene	S	93.5	0	75.2-115	%REC	1	04/16/08 16:08	
Sur: Dibromofluoromethane	S	102	0	92.7-119	%REC	1	04/16/08 16:08	
Sur: 1,2-Dichloroethane-d4	S	104	0	88.2-132	%REC	1	04/16/08 16:08	
Sur: Toluene-d8	S	108	0	89.3-116	%REC	1	04/16/08 16:08	

BOD, 5 DAY		Method:	5210B_18ED		Prep Date/Time:	04/11/08 11:00	Analyst:	BJH
Biochemical Oxygen Demand	A	ND	2.0	2.0	mg/L	1	04/11/08 11:00	
PH		Method:	4500H B/9040C		Prep Date/Time:		Analyst:	RJC
pH	A	7.16	0.02	0.02	H	pH units	1	04/11/08 22:05
TOTAL SUSPENDED SOLIDS		Method:	2540D_18ED		Prep Date/Time:		Analyst:	BJH
Total Suspended Solids	A	ND	1.0	1.0	mg/L	1	04/17/08 10:51	

**May 27, 2008 Compliance Sample  
Laboratory Results**

## ANALYTICAL RESULTS

Date: Thursday, May 29, 2008

**Client:** MWH, Inc.  
**Client Project:** GWTP - Monthly / ACS  
**Client Sample ID:** Effluent  
**Sample Description:**  
**Sample Matrix:** Aqueous

**Work Order / ID:** ME0805A04-01  
**Collection Date:** 05/27/08 14:20  
**Date Received:** 05/27/08 15:35

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

VOC'S	Method: SW8260B			Prep Date/Time:			Analyst: MLT	
Acetone	A	ND	0.0020	0.0050	UT	mg/L	1	05/28/08 19:22
Benzene	A	ND	0.00030	0.0010		mg/L	1	05/28/08 19:22
2-Butanone	A	ND	0.0015	0.0020	UT	mg/L	1	05/28/08 19:22
Chloromethane	A	ND	0.00030	0.0020		mg/L	1	05/28/08 19:22
1,1-Dichloroethane	A	ND	0.00030	0.0010		mg/L	1	05/28/08 19:22
cis-1,2-Dichloroethene	A	ND	0.00040	0.0010		mg/L	1	05/28/08 19:22
Ethylbenzene	A	ND	0.00020	0.0010		mg/L	1	05/28/08 19:22
4-Methyl-2-Pentanone	A	ND	0.00080	0.0010		mg/L	1	05/28/08 19:22
Methylene chloride	A	ND	0.00070	0.0020		mg/L	1	05/28/08 19:22
Tetrachloroethene	A	ND	0.00040	0.0010		mg/L	1	05/28/08 19:22
Trichloroethene	A	ND	0.00030	0.0010		mg/L	1	05/28/08 19:22
Vinyl chloride	A	ND	0.00040	0.0020		mg/L	1	05/28/08 19:22
1,4-Dichlorobenzene	A	ND	0.00020	0.0010		mg/L	1	05/28/08 19:22
Surr: 4-Bromofluorobenzene	S	93.1	0	75.2-115	%REC	1	05/28/08 19:22	
Surr: Dibromofluoromethane	S	98.6	0	92.7-119	%REC	1	05/28/08 19:22	
Surr: 1,2-Dichloroethane-d4	S	97.8	0	88.2-132	%REC	1	05/28/08 19:22	
Surr: Toluene-d8	S	102	0	89.3-116	%REC	1	05/28/08 19:22	

PH	Method: 4500H B/9040C			Prep Date/Time:			Analyst: RJC	
pH	A	6.70	0.02	0.02	H	pH units	1	05/27/08 21:16

5/28/08

## ANALYTICAL RESULTS

Date: Thursday, May 29, 2008

**Client:** MWH, Inc.  
**Client Project:** GWTP - Monthly / ACS  
**Client Sample ID:** Effluent  
**Sample Description:**  
**Sample Matrix:** Aqueous

**Work Order / ID:** ME0805A04-01  
**Collection Date:** 05/27/08 14:20  
**Date Received:** 05/27/08 15:35

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

VOC'S	Method: SW8260B			Prep Date/Time:			Analyst: MLT	
Acetone	A	ND	0.0020	0.0050		mg/L	1	05/28/08 19:22
Benzene	A	ND	0.00030	0.0010		mg/L	1	05/28/08 19:22
2-Butanone	A	ND	0.0015	0.0020		mg/L	1	05/28/08 19:22
Chloromethane	A	ND	0.00030	0.0020		mg/L	1	05/28/08 19:22
1,1-Dichloroethane	A	ND	0.00030	0.0010		mg/L	1	05/28/08 19:22
cis-1,2-Dichloroethene	A	ND	0.00040	0.0010		mg/L	1	05/28/08 19:22
Ethylbenzene	A	ND	0.00020	0.0010		mg/L	1	05/28/08 19:22
4-Methyl-2-Pentanone	A	ND	0.00080	0.0010		mg/L	1	05/28/08 19:22
Methylene chloride	A	ND	0.00070	0.0020		mg/L	1	05/28/08 19:22
Tetrachloroethylene	A	ND	0.00040	0.0010		mg/L	1	05/28/08 19:22
Trichloroethylene	A	ND	0.00030	0.0010		mg/L	1	05/28/08 19:22
Vinyl chloride	A	ND	0.00040	0.0020		mg/L	1	05/28/08 19:22
1,4-Dichlorobenzene	A	ND	0.00020	0.0010		mg/L	1	05/28/08 19:22
Surr: 4-Bromofluorobenzene	S	93.1	0	75.2-115	%REC	1	05/28/08 19:22	
Surr: Dibromofluoromethane	S	98.6	0	92.7-119	%REC	1	05/28/08 19:22	
Surr: 1,2-Dichloroethane-d4	S	97.8	0	88.2-132	%REC	1	05/28/08 19:22	
Surr: Toluene-d8	S	102	0	89.3-116	%REC	1	05/28/08 19:22	

PH	Method: 4500H B/9040C			Prep Date/Time:			Analyst: RJC	
pH	A	6.70	0.02	0.02	H	pH units	1	05/27/08 21:16

4/6/08

**June 27, 2008 Compliance Sample  
Laboratory Results**



## ANALYTICAL RESULTS

Date: Monday, July 07, 2008

Client:	MWH, Inc.						
Client Project:	GWTP - Monthly / ACS						
Client Sample ID:	Effluent						
Sample Description:							
Sample Matrix:	Aqueous						
					Work Order / ID:	MEO806B08-01	
					Collection Date:	06/27/08 12:45	
					Date Received:	06/27/08 14:15	

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

VOC'S		Method:	SW8260B		Prep Date/Time:			Analyst: CLR
Acetone	A	0.0021	0.0020	0.0050	Jb	mg/L	1	07/03/08 13:53
Benzene	A	ND	0.00030	0.0010		mg/L	1	07/03/08 13:53
2-Butanone	A	ND	0.0015	0.0020		mg/L	1	07/03/08 13:53
Chloromethane	A	0.00054	0.00030	0.0020	J	mg/L	1	07/03/08 13:53
1,1-Dichloroethane	A	ND	0.00030	0.0010		mg/L	1	07/03/08 13:53
cis-1,2-Dichloroethene	A	ND	0.00040	0.0010		mg/L	1	07/03/08 13:53
Ethylbenzene	A	ND	0.00020	0.0010		mg/L	1	07/03/08 13:53
4-Methyl-2-Pentanone	A	ND	0.00080	0.0010		mg/L	1	07/03/08 13:53
Methylene chloride	A	ND	0.00070	0.0020		mg/L	1	07/03/08 13:53
Tetrachloroethene	A	ND	0.00040	0.0010		mg/L	1	07/03/08 13:53
Trichloroethene	A	ND	0.00030	0.0010		mg/L	1	07/03/08 13:53
Vinyl chloride	A	ND	0.00040	0.0020		mg/L	1	07/03/08 13:53
1,4-Dichlorobenzene	A	ND	0.00020	0.0010		mg/L	1	07/03/08 13:53
Sur: 4-Bromofluorobenzene	S	101	0	75.2-115	%REC	1	07/03/08 13:53	O.0050 UBJ
Sur: Dibromofluoromethane	S	101	0	92.7-119	%REC	1	07/03/08 13:53	UJ
Sur: 1,2-Dichloroethane-d4	S	108	0	88.2-132	%REC	1	07/03/08 13:53	
Sur: Toluene-d8	S	98.9	0	89.3-116	%REC	1	07/03/08 13:53	

PH		Method:	4500H B/8040C		Prep Date/Time:			Analyst: RJC
pH	A	7.37	0.02	0.02	H	pH units	1	06/30/08 21:00

1/26/08

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

**APPENDIX B**

**THERMAL OXIDIZER OFF-GAS ANALYTICAL DATA**

**April 17, 2008 Off-Gas Sample Laboratory Results**



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #1 Offsite ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-01B  
**Collection Date:** 04/17/08 10:03  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15			Prep Date/Time:		Analyst: MAK	
1,1,1-Trichloroethane	A	11000	240	1500	ppbv	,00	05/10/08 02:42	J
1,1,2,2-Tetrachloroethane	A	ND	8.4	30	ppbv	60	05/10/08 04:09	
1,1,2-Trichloroethane	A	ND	6.6	30	ppbv	60	05/10/08 04:09	
1,1-Dichloroethane	A	2100	30	150	ppbv	300	05/10/08 03:25	
1,1-Dichloroethene	A	72	4.2	30	ppbv	60	05/10/08 04:09	
1,2-Dichloroethane	A	350	6	30	ppbv	60	05/10/08 04:09	
1,2-Dichloropropane	A	79	5.4	30	ppbv	60	05/10/08 04:09	J
2-Butanone	A	4700	63	600	ppbv	300	05/10/08 03:25	J
2-Hexanone	A	320	6.6	120	ppbv	60	05/10/08 04:09	
4-Methyl-2-Pentanone	A	2600	48	150	ppbv	300	05/10/08 03:25	
Acetone	A	4400	36	600	ppbv	300	05/10/08 03:25	B
Benzene	A	4300	30	150	ppbv	300	05/10/08 03:25	J
Bromodichloromethane	A	ND	6	30	ppbv	60	05/10/08 04:09	
Bromoform	A	ND	5.4	30	ppbv	60	05/10/08 04:09	
Bromomethane	A	ND	4.8	30	ppbv	60	05/10/08 04:09	
Carbon disulfide	A	200	20	120	ppbv	60	05/10/08 04:09	UB
Carbon tetrachloride	A	ND	6.6	30	ppbv	60	05/10/08 04:09	
Chlorobenzene	A	16	6.6	30	J	ppbv	60	05/10/08 04:09
Chloroethane	A	110	6.6	30	ppbv	60	05/10/08 04:09	
Chloroform	A	870	6.6	30	ppbv	60	05/10/08 04:09	
Chloromethane	A	ND	4.2	120	ppbv	60	05/10/08 04:09	J
cis-1,2-Dichloroethene	A	1100	5.4	30	ppbv	60	05/10/08 04:09	J
cis-1,3-Dichloropropene	A	ND	6	30	ppbv	60	05/10/08 04:09	
Dibromochloromethane	A	ND	4.2	30	ppbv	60	05/10/08 04:09	
Ethyl benzene	A	5300	33	150	ppbv	300	05/10/08 03:25	
m,p-Xylene	A	21000	390	3000	ppbv	,00	05/10/08 02:42	J
Methylene chloride	A	14000	1300	12000	ppbv	,00	05/10/08 02:42	UB
o-Xylene	A	7600	390	1500	ppbv	,00	05/10/08 02:42	J
Styrene	A	460	7.8	30	ppbv	60	05/10/08 04:09	
Tetrachloroethene	A	5100	33	150	ppbv	300	05/10/08 03:25	
Toluene	A	31000	330	1500	ppbv	,00	05/10/08 02:42	J
trans-1,2-Dichloroethene	A	30	4.8	30	ppbv	60	05/10/08 04:09	
trans-1,3-Dichloropropene	A	ND	6	30	ppbv	60	05/10/08 04:09	
Trichloroethene	A	5400	33	150	ppbv	300	05/10/08 03:25	
Vinyl chloride	A	230	4.8	30	ppbv	60	05/10/08 04:09	
Surr: 4-Bromofluorobenzene	S	101	0	77.7-127	%REC	60	05/10/08 04:09	



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #2 SBPA ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-02B  
**Collection Date:** 04/17/08 10:04  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

TOXIC ORGANICS IN AIR BY GC/MS	Method:	TO-15			Prep Date/Time:		Analyst:	MAK
1,1,1-Trichloroethane	A	3300	24	150	ppbv	300	05/10/08 05:33	J
1,1,2,2-Tetrachloroethane	A	ND	8.4	30	ppbv	60	05/10/08 06:18	
1,1,2-Trichloroethane	A	ND	6.6	30	ppbv	60	05/10/08 06:18	
1,1-Dichloroethane	A	750	6	30	ppbv	60	05/10/08 06:18	
1,1-Dichloroethene	A	59	4.2	30	ppbv	60	05/10/08 06:18	
1,2-Dichloroethane	A	86	6	30	ppbv	60	05/10/08 06:18	
1,2-Dichloropropane	A	69	5.4	30	ppbv	60	05/10/08 06:18	
2-Butanone	A	ND	13	120	ppbv	60	05/10/08 06:18	
2-Hexanone	A	ND	6.6	120	ppbv	60	05/10/08 06:18	
4-Methyl-2-Pentanone	A	300	9.6	30	ppbv	60	05/10/08 06:18	
Acetone	A	140	7.2	120	ppbv	60	05/10/08 06:18	UB
Benzene	A	480	6	30	ppbv	60	05/10/08 06:18	
Bromodichloromethane	A	ND	6	30	ppbv	60	05/10/08 06:18	
Bromoform	A	ND	5.4	30	ppbv	60	05/10/08 06:18	
Bromomethane	A	ND	4.8	30	ppbv	60	05/10/08 06:18	
Carbon disulfide	A	110	20	120	J	ppbv	60	05/10/08 06:18
Carbon tetrachloride	A	ND	6.6	30	ppbv	60	05/10/08 06:18	
Chlorobenzene	A	ND	6.6	30	ppbv	60	05/10/08 06:18	
Chloroethane	A	340	6.6	30	ppbv	60	05/10/08 06:18	
Chloroform	A	1100	6.6	30	ppbv	60	05/10/08 06:18	J
Chloromethane	A	ND	4.2	120	ppbv	60	05/10/08 06:18	
cis-1,2-Dichloroethene	A	3800	27	150	ppbv	300	05/10/08 05:33	J
cis-1,3-Dichloropropene	A	ND	6	30	ppbv	60	05/10/08 06:18	
Dibromochloromethane	A	ND	4.2	30	ppbv	60	05/10/08 06:18	
Ethyl benzene	A	1100	33	150	ppbv	300	05/10/08 05:33	
m,p-Xylene	A	4200	39	300	ppbv	300	05/10/08 05:33	
Methylene chloride	A	1000	26	240	ppbv	60	05/10/08 06:18	
o-Xylene	A	2100	39	150	ppbv	300	05/10/08 05:33	
Styrene	A	160	7.8	30	ppbv	60	05/10/08 06:18	
Tetrachloroethene	A	3500	33	150	ppbv	300	05/10/08 05:33	
Toluene	A	3100	33	150	ppbv	300	05/10/08 05:33	
trans-1,2-Dichloroethene	A	64	4.8	30	ppbv	60	05/10/08 06:18	
trans-1,3-Dichloropropene	A	ND	6	30	ppbv	60	05/10/08 06:18	
Trichloroethene	A	2100	33	150	ppbv	300	05/10/08 05:33	
Vinyl chloride	A	900	4.8	30	ppbv	60	05/10/08 06:18	
Surr: 4-Bromofluorobenzene	S	98.8	0	77.7-127	%REC	60	05/10/08 06:18	



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #3 TOX 1 Influent  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-03B  
**Collection Date:** 04/17/08 10:20  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

TOXIC ORGANICS IN AIR BY GC/MS	Method: TO-15		Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	4100	24	150	ppbv	300	05/06/08 22:32	
1,1,2,2-Tetrachloroethane	A	ND	8.4	30	ppbv	60	05/06/08 23:17	
1,1,2-Trichloroethane	A	ND	6.6	30	ppbv	60	05/06/08 23:17	
1,1-Dichloroethane	A	940	6	30	ppbv	60	05/06/08 23:17	
1,1-Dichloroethene	A	83	4.2	30	ppbv	60	05/06/08 23:17	
1,2-Dichloroethane	A	110	6	30	ppbv	60	05/06/08 23:17	
1,2-Dichloropropane	A	82	5.4	30	ppbv	60	05/06/08 23:17	
2-Butanone	A	ND	13	120	ppbv	60	05/06/08 23:17	
2-Hexanone	A	ND	6.6	120	ppbv	60	05/06/08 23:17	
4-Methyl-2-Pentanone	A	370	9.6	30	ppbv	60	05/06/08 23:17	
Acetone	A	200	7.2	120	ppbv	60	05/06/08 23:17	
Benzene	A	570	6	30	ppbv	60	05/06/08 23:17	
Bromodichloromethane	A	ND	6	30	ppbv	60	05/06/08 23:17	
Bromoform	A	ND	5.4	30	ppbv	60	05/06/08 23:17	
Bromomethane	A	ND	4.8	30	ppbv	60	05/06/08 23:17	
Carbon disulfide	A	2900	97	590	ppbv	300	05/06/08 22:32	
Carbon tetrachloride	A	ND	6.6	30	ppbv	60	05/06/08 23:17	
Chlorobenzene	A	16	6.6	30	J	ppbv	60	05/06/08 23:17
Chloroethane	A	390	6.6	30	ppbv	60	05/06/08 23:17	
Chloroform	A	1100	32	150	ppbv	300	05/06/08 22:32	
Chloromethane	A	ND	4.2	120	ppbv	60	05/06/08 23:17	
cis-1,2-Dichloroethene	A	5500	26	150	ppbv	300	05/06/08 22:32	
cis-1,3-Dichloropropene	A	ND	6	30	ppbv	60	05/06/08 23:17	
Dibromochloromethane	A	ND	4.2	30	ppbv	60	05/06/08 23:17	
Ethyl benzene	A	1500	32	150	ppbv	300	05/06/08 22:32	
m,p-Xylene	A	5800	38	290	ppbv	300	05/06/08 22:32	
Methylene chloride	A	1600	130	1200	ppbv	300	05/06/08 22:32	
o-Xylene	A	3000	38	150	ppbv	300	05/06/08 22:32	
Styrene	A	ND	7.8	30	ppbv	60	05/06/08 23:17	
Tetrachloroethene	A	4600	32	150	ppbv	300	05/06/08 22:32	
Toluene	A	4400	32	150	ppbv	300	05/06/08 22:32	
trans-1,2-Dichloroethene	A	63	4.8	30	ppbv	60	05/06/08 23:17	
trans-1,3-Dichloropropene	A	ND	6	30	ppbv	60	05/06/08 23:17	
Trichloroethene	A	2700	32	150	ppbv	300	05/06/08 22:32	
Vinyl chloride	A	1000	4.8	30	ppbv	60	05/06/08 23:17	
Surr: 4-Bromofluorobenzene	S	97.3	0	77.7-127	%REC	60	05/06/08 23:17	

6/17/08



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #4 TOX 1 Influent (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-04B  
**Collection Date:** 04/17/08 10:38  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

TOXIC ORGANICS IN AIR BY GC/MS	Method: TO-15		Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	4500	24	150	ppbv	300	05/07/08 00:41	
1,1,2,2-Tetrachloroethane	A	ND	0.14	0.50	ppbv	1	05/07/08 01:27	
1,1,2-Trichloroethane	A	ND	0.11	0.50	ppbv	1	05/07/08 01:27	
1,1-Dichloroethane	A	16	0.1	0.50	ppbv	1	05/07/08 01:27	
1,1-Dichloroethene	A	1.2	0.07	0.50	ppbv	1	05/07/08 01:27	
1,2-Dichloroethane	A	1.7	0.1	0.50	ppbv	1	05/07/08 01:27	
1,2-Dichloropropane	A	1.3	0.09	0.50	ppbv	1	05/07/08 01:27	
2-Butanone	A	ND	0.21	2.0	ppbv	1	05/07/08 01:27	
2-Hexanone	A	1.4	0.11	2.0	J	ppbv	1	05/07/08 01:27
4-Methyl-2-Pentanone	A	5.0	0.16	0.50	ppbv	1	05/07/08 01:27	
Acetone	A	3.0	0.12	2.0	b	ppbv	1	05/07/08 01:27
Benzene	A	8.6	0.1	0.50	b	ppbv	1	05/07/08 01:27
Bromodichloromethane	A	ND	0.1	0.50	ppbv	1	05/07/08 01:27	
Bromoform	A	ND	0.09	0.50	ppbv	1	05/07/08 01:27	UB
Bromomethane	A	ND	0.08	0.50	ppbv	1	05/07/08 01:27	B
Carbon disulfide	A	16	0.33	2.0	b	ppbv	1	05/07/08 01:27
Carbon tetrachloride	A	ND	0.11	0.50	ppbv	1	05/07/08 01:27	B
Chlorobenzene	A	ND	0.11	0.50	ppbv	1	05/07/08 01:27	
Chloroethane	A	6.9	0.11	0.50	ppbv	1	05/07/08 01:27	
Chloroform	A	18	0.11	0.50	ppbv	1	05/07/08 01:27	
Chloromethane	A	ND	0.07	2.0	ppbv	1	05/07/08 01:27	
cis-1,2-Dichloroethene	A	5700	27	150	ppbv	300	05/07/08 00:41	
cis-1,3-Dichloropropene	A	ND	0.1	0.50	ppbv	1	05/07/08 01:27	
Dibromochloromethane	A	ND	0.07	0.50	ppbv	1	05/07/08 01:27	
Ethyl benzene	A	1900	33	150	ppbv	300	05/07/08 00:41	
m,p-Xylene	A	6900	39	300	ppbv	300	05/07/08 00:41	
Methylene chloride	A	19	0.43	4.0	b	ppbv	1	05/07/08 01:27
o-Xylene	A	3600	39	150	ppbv	300	05/07/08 00:41	B
Styrene	A	ND	0.13	0.50	ppbv	1	05/07/08 01:27	
Tetrachloroethene	A	5300	33	150	ppbv	300	05/07/08 00:41	
Toluene	A	4900	33	150	ppbv	300	05/07/08 00:41	B
trans-1,2-Dichloroethene	A	1.0	0.08	0.50	ppbv	1	05/07/08 01:27	
trans-1,3-Dichloropropene	A	ND	0.1	0.50	ppbv	1	05/07/08 01:27	
Trichloroethene	A	3000	33	150	ppbv	300	05/07/08 00:41	
Vinyl chloride	A	18	0.08	0.50	ppbv	1	05/07/08 01:27	
Surr: 4-Bromofluorobenzene	S	99.3	0	77.7-127	%REC	1	05/07/08 01:27	

5/17/08



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

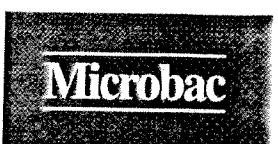
**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #5 TOX 1 Effluent  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-05B  
**Collection Date:** 04/17/08 10:18  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15			Prep Date/Time:		Analyst: MAK	
1,1,1-Trichloroethane	A	410	3.9	24	ppbv	50	05/06/08 18:58	
1,1,2,2-Tetrachloroethane	A	ND	0.14	0.50	ppbv	1	05/06/08 19:43	
1,1,2-Trichloroethane	A	0.4	0.11	0.50	ppbv	1	05/06/08 19:43	
1,1-Dichloroethane	A	7.9	0.1	0.50	ppbv	1	05/06/08 19:43	
1,1-Dichloroethene	A	11	0.07	0.50	ppbv	1	05/06/08 19:43	
1,2-Dichloroethane	A	1.4	0.1	0.50	ppbv	1	05/06/08 19:43	
1,2-Dichloropropane	A	0.43	0.09	0.50	J	ppbv	1	05/06/08 19:43
2-Butanone	A	310	10	98	ppbv	50	05/06/08 18:58	
2-Hexanone	A	2.5	0.11	2.0	ppbv	1	05/06/08 19:43	
4-Methyl-2-Pentanone	A	19	0.16	0.50	ppbv	1	05/06/08 19:43	
Acetone	A	380	5.9	98	ppbv	50	05/06/08 18:58	
Benzene	A	19	0.1	0.50	b	ppbv	1	05/06/08 19:43
Bromodichloromethane	A	ND	0.1	0.50	ppbv	1	05/06/08 19:43	
Bromoform	A	ND	0.09	0.50	ppbv	1	05/06/08 19:43	
Bromomethane	A	ND	0.08	0.50	ppbv	1	05/06/08 19:43	
Carbon disulfide	A	0.57	0.33	2.0	Jb	ppbv	1	05/06/08 19:43
Carbon tetrachloride	A	ND	0.11	0.50	ppbv	1	05/06/08 19:43	
Chlorobenzene	A	0.27	0.11	0.50	J	ppbv	1	05/06/08 19:43
Chloroethane	A	0.61	0.11	0.50	ppbv	1	05/06/08 19:43	
Chloroform	A	5.4	0.11	0.50	ppbv	1	05/06/08 19:43	
Chloromethane	A	ND	0.07	2.0	ppbv	1	05/06/08 19:43	
cis-1,2-Dichloroethene	A	13	0.09	0.50	ppbv	1	05/06/08 19:43	
cis-1,3-Dichloropropene	A	ND	0.1	0.50	ppbv	1	05/06/08 19:43	
Dibromochloromethane	A	ND	0.07	0.50	ppbv	1	05/06/08 19:43	
Ethyl benzene	A	260	5.4	24	ppbv	50	05/06/08 18:58	
m,p-Xylene	A	950	6.4	49	ppbv	50	05/06/08 18:58	
Methylene chloride	A	520	21	200	ppbv	50	05/06/08 18:58	
o-Xylene	A	380	6.4	24	ppbv	50	05/06/08 18:58	
Styrene	A	5.2	0.13	0.50	ppbv	1	05/06/08 19:43	
Tetrachloroethene	A	490	5.4	24	ppbv	50	05/06/08 18:58	
Toluene	A	130	4.6	21	ppbv	50	05/06/08 18:16	
trans-1,2-Dichloroethene	A	4.2	0.08	0.50	ppbv	1	05/06/08 19:43	
trans-1,3-Dichloropropene	A	ND	0.1	0.50	ppbv	1	05/06/08 19:43	
Trichloroethene	A	340	5.4	24	ppbv	50	05/06/08 18:58	
Vinyl chloride	A	0.25	0.08	0.50	J	ppbv	1	05/06/08 19:43
Surr: 4-Bromofluorobenzene	S	101	0	77.7-127	%REC	1	05/06/08 19:43	

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #6 TOX 2 Influent  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-06B  
**Collection Date:** 04/17/08 11:10  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15	Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	17000	240	1500	ppbv	,00	05/09/08 21:40	
1,1,2,2-Tetrachloroethane	A	ND	8.4	30	ppbv	60	05/09/08 23:07	
1,1,2-Trichloroethane	A	ND	6.6	30	ppbv	60	05/09/08 23:07	
1,1-Dichloroethane	A	2000	30	150	ppbv	300	05/09/08 22:22	J
1,1-Dichloroethene	A	74	4.2	30	ppbv	60	05/09/08 23:07	
1,2-Dichloroethane	A	370	6	30	ppbv	60	05/09/08 23:07	
1,2-Dichloropropane	A	77	5.4	30	ppbv	60	05/09/08 23:07	
2-Butanone	A	4300	63	600	ppbv	300	05/09/08 22:22	
2-Hexanone	A	320	6.6	120	ppbv	60	05/09/08 23:07	
4-Methyl-2-Pentanone	A	2300	48	150	ppbv	300	05/09/08 22:22	
Acetone	A	4000	36	600	ppbv	300	05/09/08 22:22	B
Benzene	A	3900	30	150	ppbv	300	05/09/08 22:22	
Bromodichloromethane	A	ND	6	30	ppbv	60	05/09/08 23:07	
Bromoform	A	ND	5.4	30	ppbv	60	05/09/08 23:07	
Bromomethane	A	ND	4.8	30	ppbv	60	05/09/08 23:07	
Carbon disulfide	A	870	20	120	ppbv	60	05/09/08 23:07	BJ
Carbon tetrachloride	A	ND	6.6	30	ppbv	60	05/09/08 23:07	
Chlorobenzene	A	17	6.6	30	J	ppbv	60	05/09/08 23:07
Chloroethane	A	120	6.6	30	ppbv	60	05/09/08 23:07	
Chloroform	A	900	6.6	30	ppbv	60	05/09/08 23:07	
Chloromethane	A	ND	4.2	120	ppbv	60	05/09/08 23:07	J
cis-1,2-Dichloroethene	A	1200	5.4	30	ppbv	60	05/09/08 23:07	J
cis-1,3-Dichloropropene	A	ND	6	30	ppbv	60	05/09/08 23:07	J
Dibromochloromethane	A	ND	4.2	30	ppbv	60	05/09/08 23:07	
Ethyl benzene	A	4600	33	150	ppbv	300	05/09/08 22:22	
m,p-Xylene	A	25000	390	3000	ppbv	,00	05/09/08 21:40	
Methylene chloride	A	24000	1300	12000	ppbv	,00	05/09/08 21:40	B
o-Xylene	A	5700	39	150	ppbv	300	05/09/08 22:22	
Styrene	A	460	7.8	30	ppbv	60	05/09/08 23:07	
Tetrachloroethene	A	4700	33	150	ppbv	300	05/09/08 22:22	
Toluene	A	41000	330	1500	ppbv	,00	05/09/08 21:40	
trans-1,2-Dichloroethene	A	30	4.8	30	ppbv	60	05/09/08 23:07	
trans-1,3-Dichloropropene	A	ND	6	30	ppbv	60	05/09/08 23:07	
Trichloroethene	A	5200	33	150	ppbv	300	05/09/08 22:22	
Vinyl chloride	A	230	4.8	30	ppbv	60	05/09/08 23:07	
Surr: 4-Bromofluorobenzene	S	103	0	77.7-127	%REC	60	05/09/08 23:07	J



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #7 TOX 2 Influent (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-07B  
**Collection Date:** 04/17/08 11:25  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15			Prep Date/Time:		Analyst: MAK	
1,1,1-Trichloroethane	A	11000	200	1200	ppbv	,00	05/10/08 00:33	J
1,1,2,2-Tetrachloroethane	A	ND	8.4	30	ppbv	60	05/10/08 02:01	
1,1,2-Trichloroethane	A	ND	6.6	30	ppbv	60	05/10/08 02:01	
1,1-Dichloroethane	A	1600	27	140	ppbv	300	05/10/08 01:16	
1,1-Dichloroethene	A	73	4.2	30	ppbv	60	05/10/08 02:01	
1,2-Dichloroethane	A	350	6	30	ppbv	60	05/10/08 02:01	
1,2-Dichloropropane	A	74	5.4	30	ppbv	60	05/10/08 02:01	
2-Butanone	A	3600	57	550	ppbv	300	05/10/08 01:16	
2-Hexanone	A	310	6.6	120	ppbv	60	05/10/08 02:01	
4-Methyl-2-Pentanone	A	2200	44	140	ppbv	300	05/10/08 01:16	
Acetone	A	2600	33	550	ppbv	300	05/10/08 01:16	B
Benzene	A	3400	27	140	ppbv	300	05/10/08 01:16	
Bromodichloromethane	A	ND	6	30	ppbv	60	05/10/08 02:01	
Bromoform	A	ND	5.4	30	ppbv	60	05/10/08 02:01	
Bromomethane	A	ND	4.8	30	ppbv	60	05/10/08 02:01	
Carbon disulfide	A	170	20	120	ppbv	60	05/10/08 02:01	UB
Carbon tetrachloride	A	ND	6.6	30	ppbv	60	05/10/08 02:01	
Chlorobenzene	A	16	6.6	30	J	ppbv	60	05/10/08 02:01
Chloroethane	A	100	6.6	30	ppbv	60	05/10/08 02:01	
Chloroform	A	870	6.6	30	ppbv	60	05/10/08 02:01	
Chloromethane	A	ND	4.2	120	ppbv	60	05/10/08 02:01	J
cis-1,2-Dichloroethene	A	1100	5.4	30	ppbv	60	05/10/08 02:01	J
cis-1,3-Dichloropropene	A	ND	6	30	ppbv	60	05/10/08 02:01	
Dibromochloromethane	A	ND	4.2	30	ppbv	60	05/10/08 02:01	
Ethyl benzene	A	3700	30	140	ppbv	300	05/10/08 01:16	J
m,p-Xylene	A	24000	320	2500	ppbv	,00	05/10/08 00:33	J
Methylene chloride	A	13000	1100	10000	ppbv	,00	05/10/08 00:33	UB
o-Xylene	A	4700	35	140	ppbv	300	05/10/08 01:16	J
Styrene	A	420	7.8	30	ppbv	60	05/10/08 02:01	
Tetrachloroethene	A	4000	30	140	ppbv	300	05/10/08 01:16	
Toluene	A	34000	270	1200	ppbv	,00	05/10/08 00:33	J
trans-1,2-Dichloroethene	A	28	4.8	30	J	ppbv	60	05/10/08 02:01
trans-1,3-Dichloropropene	A	ND	6	30	ppbv	60	05/10/08 02:01	
Trichloroethene	A	4200	30	140	ppbv	300	05/10/08 01:16	
Vinyl chloride	A	210	4.8	30	ppbv	60	05/10/08 02:01	
Surr: 4-Bromofluorobenzene	S	98.9	0	77.7-127	%REC	60	05/10/08 02:01	

6/13/08

## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #8 TOX 2 Effluent  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-08B  
**Collection Date:** 04/17/08 11:30  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15			Prep Date/Time:		Analyst: MAK
1,1,1-Trichloroethane	A	280	3.3	21	ppbv	50	05/06/08 16:06
1,1,2,2-Tetrachloroethane	A	0.4	0.14	0.50	J ppbv	1	05/06/08 17:34
1,1,2-Trichloroethane	A	2.6	0.11	0.50	ppbv	1	05/06/08 17:34
1,1-Dichloroethane	A	54	0.49	2.4	ppbv	5	05/06/08 16:49
1,1-Dichloroethene	A	77	0.34	2.4	ppbv	5	05/06/08 16:49
1,2-Dichloroethane	A	12	0.1	0.50	ppbv	1	05/06/08 17:34
1,2-Dichloropropane	A	2.3	0.09	0.50	ppbv	1	05/06/08 17:34
2-Butanone	A	130	8.7	83	ppbv	50	05/06/08 16:06
2-Hexanone	A	6.2	0.11	2.0	ppbv	1	05/06/08 17:34
4-Methyl-2-Pentanone	A	57	0.78	2.4	ppbv	5	05/06/08 16:49
Acetone	A	210	5	83	ppbv	50	05/06/08 16:06
Benzene	A	230	4.2	21	ppbv	50	05/06/08 16:06
Bromodichloromethane	A	0.59	0.1	0.50	ppbv	1	05/06/08 17:34
Bromoform	A	ND	0.09	0.50	ppbv	1	05/06/08 17:34
Bromomethane	A	0.25	0.08	0.50	J ppbv	1	05/06/08 17:34
Carbon disulfide	A	0.89	0.33	2.0	Jb ppbv	1	05/06/08 17:34
Carbon tetrachloride	A	0.52	0.11	0.50	ppbv	1	05/06/08 17:34
Chlorobenzene	A	2.7	0.11	0.50	ppbv	1	05/06/08 17:34
Chloroethane	A	2.3	0.11	0.50	ppbv	1	05/06/08 17:34
Chloroform	A	34	0.54	2.4	ppbv	5	05/06/08 16:49
Chloromethane	A	ND	0.07	2.0	ppbv	1	05/06/08 17:34
cis-1,2-Dichloroethene	A	33	0.44	2.4	ppbv	5	05/06/08 16:49
cis-1,3-Dichloropropene	A	0.58	0.1	0.50	ppbv	1	05/06/08 17:34
Dibromochloromethane	A	ND	0.07	0.50	ppbv	1	05/06/08 17:34
Ethyl benzene	A	81	4.6	21	ppbv	50	05/06/08 16:06
m,p-Xylene	A	280	5.4	42	ppbv	50	05/06/08 16:06
Methylene chloride	A	480	18	170	ppbv	50	05/06/08 16:06
o-Xylene	A	110	5.4	21	ppbv	50	05/06/08 16:06
Styrene	A	19	0.13	0.50	ppbv	1	05/06/08 17:34
Tetrachloroethene	A	200	4.6	21	ppbv	50	05/06/08 16:06
Toluene	A	660	4.6	21	ppbv	50	05/06/08 16:06
trans-1,2-Dichloroethene	A	7.2	0.08	0.50	ppbv	1	05/06/08 17:34
trans-1,3-Dichloropropene	A	ND	0.1	0.50	ppbv	1	05/06/08 17:34
Trichloroethene	A	190	4.6	21	ppbv	50	05/06/08 16:06
Vinyl chloride	A	12	0.08	0.50	ppbv	1	05/06/08 17:34
Surr: 4-Bromofluorobenzene	S	102	0	77.7-127	%REC	1	05/06/08 17:34

J6/17/08



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #1 Offsite ISVE  
**Sample Description:**  
**Sample Matrix:** Air

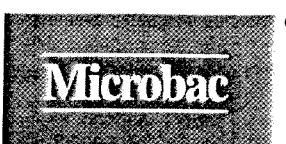
**Work Order / ID:** ME0804739-01A  
**Collection Date:** 04/17/08 10:03  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE	Method:	Prep Date/Time: 04/23/08 12:00 Analyst: BEM					
1,2,4-Trichlorobenzene	A	ND	0.9	10	ug, Total	1	04/24/08 19:41
1,2-Dichlorobenzene	A	7.4	0.7	10	J ug, Total	1	04/24/08 19:41
1,3-Dichlorobenzene	A	ND	0.8	10	ug, Total	1	04/24/08 19:41
1,4-Dichlorobenzene	A	1.4	0.9	10	J ug, Total	1	04/24/08 19:41
2,4,5-Trichlorophenol	A	ND	1.5	10	ug, Total	1	04/24/08 19:41
2,4,6-Trichlorophenol	A	ND	0.9	10	ug, Total	1	04/24/08 19:41
2,4-Dichlorophenol	A	ND	0.7	10	ug, Total	1	04/24/08 19:41
2,4-Dimethylphenol	A	ND	0.8	10	ug, Total	1	04/24/08 19:41
2,4-Dinitrophenol	A	ND	9.4	50	ug, Total	1	04/24/08 19:41
2,4-Dinitrotoluene	A	ND	0.8	10	ug, Total	1	04/24/08 19:41
2,6-Dinitrotoluene	A	ND	1.1	10	ug, Total	1	04/24/08 19:41
2-Chloronaphthalene	A	ND	0.9	10	ug, Total	1	04/24/08 19:41
2-Chlorophenol	A	ND	0.7	10	ug, Total	1	04/24/08 19:41
2-Methylnaphthalene	A	2.5	0.9	10	J ug, Total	1	04/24/08 19:41
2-Methylphenol	A	ND	0.7	10	ug, Total	1	04/24/08 19:41
2-Nitroaniline	A	ND	1	50	ug, Total	1	04/24/08 19:41
2-Nitrophenol	A	ND	1	10	ug, Total	1	04/24/08 19:41
3,3'-Dichlorobenzidine	A	ND	0.7	50	ug, Total	1	04/24/08 19:41
3-Nitroaniline	A	ND	1.3	50	ug, Total	1	04/24/08 19:41
3/4-Methylphenol	A	ND	0.8	10	ug, Total	1	04/24/08 19:41
4,6-Dinitro-2-methylphenol	A	ND	1.1	50	ug, Total	1	04/24/08 19:41
4-Bromophenyl phenyl ether	A	ND	0.9	10	ug, Total	1	04/24/08 19:41
4-Chloro-3-methylphenol	A	ND	1.2	20	ug, Total	1	04/24/08 19:41
4-Chloroaniline	A	ND	1	20	ug, Total	1	04/24/08 19:41
4-Chlorophenyl phenyl ether	A	ND	0.9	10	ug, Total	1	04/24/08 19:41
4-Nitroaniline	A	ND	1.7	50	ug, Total	1	04/24/08 19:41
4-Nitrophenol	A	ND	4.3	50	ug, Total	1	04/24/08 19:41
Bis(2-chloroethoxy)methane	A	ND	1	10	ug, Total	1	04/24/08 19:41
Bis(2-chloroethyl)ether	A	ND	0.9	10	ug, Total	1	04/24/08 19:41
Bis(2-chloroisopropyl)ether	A	ND	0.9	10	ug, Total	1	04/24/08 19:41
Bis(2-ethylhexyl)phthalate	A	2.3	1.1	10	Jb ug, Total	1	04/24/08 19:41
Butyl benzyl phthalate	A	ND	1	10	ug, Total	1	04/24/08 19:41
Carbazole	A	ND	1.2	10	ug, Total	1	04/24/08 19:41
Di-n-butyl phthalate	A	ND	1.2	10	ug, Total	1	04/24/08 19:41
Di-n-octyl phthalate	A	ND	1.1	10	ug, Total	1	04/24/08 19:41
Dibenzofuran	A	ND	0.8	10	ug, Total	1	04/24/08 19:41
Diethyl phthalate	A	ND	1.1	10	ug, Total	1	04/24/08 19:41
Dimethyl phthalate	A	ND	0.9	10	ug, Total	1	04/24/08 19:41
Hexachlorobenzene	A	ND	0.9	10	ug, Total	1	04/24/08 19:41

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

16/23/08



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

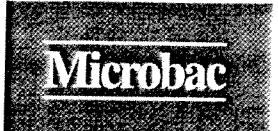
**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #1 Offsite ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-01A  
**Collection Date:** 04/17/08 10:03  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD		Prep Date/Time: 04/23/08 12:00 Analyst: BEM				
Hexachlorobutadiene	A	1.2	0.9	10	J	µg, Total	1	04/24/08 19:41
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	04/24/08 19:41
Hexachloroethane	A	ND	0.9	10		µg, Total	1	04/24/08 19:41
Isophorone	A	11	1	10		µg, Total	1	04/24/08 19:41
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	04/24/08 19:41
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	04/24/08 19:41
Nitrobenzene	A	ND	1	10		µg, Total	1	04/24/08 19:41
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	04/24/08 19:41
Phenol	A	ND	0.4	10		µg, Total	1	04/24/08 19:41
Surr: 2,4,6-Tribromophenol	S	85.3	0	30-130		%REC	1	04/24/08 19:41
Surr: 2-Fluorobiphenyl	S	75.0	0	30-130		%REC	1	04/24/08 19:41
Surr: 2-Fluorophenol	S	41.9	0	30-130		%REC	1	04/24/08 19:41
Surr: Nitrobenzene-d5	S	65.3	0	30-130		%REC	1	04/24/08 19:41
Surr: Phenol-d5	S	64.6	0	30-130		%REC	1	04/24/08 19:41
Surr: Terphenyl-d14	S	88.7	0	30-130		%REC	1	04/24/08 19:41

PAHS BY GC/MS-SIM		Method: TO-13		Prep Date/Time: 04/23/08 12:00 Analyst: BEM				
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	04/24/08 19:41
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	04/24/08 19:41
Anthracene	A	ND	0.27	1.0		µg, Total	1	04/24/08 19:41
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	04/24/08 19:41
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	04/24/08 19:41
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	04/24/08 19:41
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	04/24/08 19:41
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	04/24/08 19:41
Chrysene	A	ND	0.57	1.0		µg, Total	1	04/24/08 19:41
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	04/24/08 19:41
Fluoranthene	A	0.41	0.39	1.0	Jb	µg, Total	1	04/24/08 19:41
Fluorene	A	ND	0.25	1.0		µg, Total	1	04/24/08 19:41
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	04/24/08 19:41
Naphthalene	A	17	0.16	1.0		µg, Total	1	04/24/08 19:41
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	04/24/08 19:41
Pyrene	A	2.4	0.44	1.0	b	µg, Total	1	04/24/08 19:41
Surr: Nitrobenzene-d5	S	65.3	0	30-130		%REC	1	04/24/08 19:41
Surr: 2-Fluorobiphenyl	S	75.0	0	30-130		%REC	1	04/24/08 19:41
Surr: Terphenyl-d14	S	88.7	0	30-130		%REC	1	04/24/08 19:41



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #2 SBPA ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-02A  
**Collection Date:** 04/17/08 10:04  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD		Prep Date/Time: 04/23/08 12:00				Analyst: BEM
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	04/24/08 20:00
1,2-Dichlorobenzene	A	2.8	0.7	10	J	µg, Total	1	04/24/08 20:00
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	04/24/08 20:00
1,4-Dichlorobenzene	A	1.2	0.9	10	J	µg, Total	1	04/24/08 20:00
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	04/24/08 20:00
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	04/24/08 20:00
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	04/24/08 20:00
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	04/24/08 20:00
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	04/24/08 20:00
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	04/24/08 20:00
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	04/24/08 20:00
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	04/24/08 20:00
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	04/24/08 20:00
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	04/24/08 20:00
2-Methylphenol	A	ND	0.7	10		µg, Total	1	04/24/08 20:00
2-Nitroaniline	A	ND	1	50		µg, Total	1	04/24/08 20:00
2-Nitrophenol	A	ND	1	10		µg, Total	1	04/24/08 20:00
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	04/24/08 20:00
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	04/24/08 20:00
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	04/24/08 20:00
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	04/24/08 20:00
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	04/24/08 20:00
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	04/24/08 20:00
4-Chloroaniline	A	ND	1	20		µg, Total	1	04/24/08 20:00
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	04/24/08 20:00
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	04/24/08 20:00
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	04/24/08 20:00
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	04/24/08 20:00
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	04/24/08 20:00
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	04/24/08 20:00
Bis(2-ethylhexyl)phthalate	A	2	1.1	10	Jb	µg, Total	1	04/24/08 20:00
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	04/24/08 20:00
Carbazole	A	ND	1.2	10		µg, Total	1	04/24/08 20:00
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	04/24/08 20:00
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	04/24/08 20:00
Dibenzofuran	A	ND	0.8	10		µg, Total	1	04/24/08 20:00
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	04/24/08 20:00
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	04/24/08 20:00
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	04/24/08 20:00

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #2 SBPA ISVE  
**Sample Description:**  
**Sample Matrix:** Air

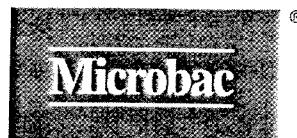
**Work Order / ID:** ME0804739-02A  
**Collection Date:** 04/17/08 10:04  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE	Method: TO-13MOD		Prep Date/Time: 04/23/08 12:00 Analyst: BEM					
Hexachlorobutadiene	A	0.97	0.9	10	J	µg, Total	1	04/24/08 20:00
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	04/24/08 20:00
Hexachloroethane	A	ND	0.9	10		µg, Total	1	04/24/08 20:00
Isophorone	A	ND	1	10		µg, Total	1	04/24/08 20:00
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	04/24/08 20:00
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	04/24/08 20:00
Nitrobenzene	A	ND	1	10		µg, Total	1	04/24/08 20:00
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	04/24/08 20:00
Phenol	A	ND	0.4	10		µg, Total	1	04/24/08 20:00
Surr: 2,4,6-Tribromophenol	S	77.5	0	30-130		%REC	1	04/24/08 20:00
Surr: 2-Fluorobiphenyl	S	69.1	0	30-130		%REC	1	04/24/08 20:00
Surr: 2-Fluorophenol	S	48.3	0	30-130		%REC	1	04/24/08 20:00
Surr: Nitrobenzene-d5	S	59.6	0	30-130		%REC	1	04/24/08 20:00
Surr: Phenol-d5	S	58.8	0	30-130		%REC	1	04/24/08 20:00
Surr: Terphenyl-d14	S	85.2	0	30-130		%REC	1	04/24/08 20:00

PAHS BY GC/MS-SIM	Method: TO-13		Prep Date/Time: 04/23/08 12:00 Analyst: BEM					
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	04/24/08 20:00
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	04/24/08 20:00
Anthracene	A	ND	0.27	1.0		µg, Total	1	04/24/08 20:00
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	04/24/08 20:00
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	04/24/08 20:00
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	04/24/08 20:00
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	04/24/08 20:00
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	04/24/08 20:00
Chrysene	A	ND	0.57	1.0		µg, Total	1	04/24/08 20:00
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	04/24/08 20:00
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	04/24/08 20:00
Fluorene	A	ND	0.25	1.0		µg, Total	1	04/24/08 20:00
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	04/24/08 20:00
Naphthalene	A	0.89	0.16	1.0	J	µg, Total	1	04/24/08 20:00
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	04/24/08 20:00
Pyrene	A	1.8	0.44	1.0	b	µg, Total	1	04/24/08 20:00
Surr: Nitrobenzene-d5	S	59.6	0	30-130		%REC	1	04/24/08 20:00
Surr: 2-Fluorobiphenyl	S	69.1	0	30-130		%REC	1	04/24/08 20:00
Surr: Terphenyl-d14	S	85.2	0	30-130		%REC	1	04/24/08 20:00

4/23/08



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #3 TOX 1 Influent  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-03A  
**Collection Date:** 04/17/08 10:20  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
		Prep Date/Time: 04/23/08 12:00 Analyst: BEM						
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	04/24/08 20:19
1,2-Dichlorobenzene	A	3.6	0.7	10	J	µg, Total	1	04/24/08 20:19
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	04/24/08 20:19
1,4-Dichlorobenzene	A	1.1	0.9	10	J	µg, Total	1	04/24/08 20:19
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	04/24/08 20:19
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	04/24/08 20:19
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	04/24/08 20:19
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	04/24/08 20:19
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	04/24/08 20:19
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	04/24/08 20:19
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	04/24/08 20:19
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	04/24/08 20:19
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	04/24/08 20:19
2-Methylnaphthalene	A	1.1	0.9	10	J	µg, Total	1	04/24/08 20:19
2-Methylphenol	A	ND	0.7	10		µg, Total	1	04/24/08 20:19
2-Nitroaniline	A	ND	1	50		µg, Total	1	04/24/08 20:19
2-Nitrophenol	A	ND	1	10		µg, Total	1	04/24/08 20:19
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	04/24/08 20:19
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	04/24/08 20:19
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	04/24/08 20:19
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	04/24/08 20:19
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	04/24/08 20:19
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	04/24/08 20:19
4-Chloroaniline	A	ND	1	20		µg, Total	1	04/24/08 20:19
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	04/24/08 20:19
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	04/24/08 20:19
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	04/24/08 20:19
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	04/24/08 20:19
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	04/24/08 20:19
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	04/24/08 20:19
Bis(2-ethylhexyl)phthalate	A	ND	1.1	10		µg, Total	1	04/24/08 20:19
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	04/24/08 20:19
Carbazole	A	ND	1.2	10		µg, Total	1	04/24/08 20:19
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	04/24/08 20:19
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	04/24/08 20:19
Dibenzofuran	A	ND	0.8	10		µg, Total	1	04/24/08 20:19
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	04/24/08 20:19
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	04/24/08 20:19
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	04/24/08 20:19

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

4/17/08/08



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #3 TOX 1 Influent  
**Sample Description:**  
**Sample Matrix:** Air

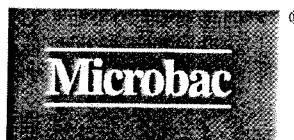
**Work Order / ID:** ME0804739-03A  
**Collection Date:** 04/17/08 10:20  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE	Method: TO-13MOD		Prep Date/Time: 04/23/08 12:00 Analyst: BEM					
Hexachlorobutadiene	A	1.3	0.9	10	J	µg, Total	1	04/24/08 20:19
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	04/24/08 20:19
Hexachloroethane	A	ND	0.9	10		µg, Total	1	04/24/08 20:19
Isophorone	A	ND	1	10		µg, Total	1	04/24/08 20:19
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	04/24/08 20:19
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	04/24/08 20:19
Nitrobenzene	A	ND	1	10		µg, Total	1	04/24/08 20:19
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	04/24/08 20:19
Phenol	A	ND	0.4	10		µg, Total	1	04/24/08 20:19
Surr: 2,4,6-Tribromophenol	S	67.8	0	30-130		%REC	1	04/24/08 20:19
Surr: 2-Fluorobiphenyl	S	54.9	0	30-130		%REC	1	04/24/08 20:19
Surr: 2-Fluorophenol	S	40.6	0	30-130		%REC	1	04/24/08 20:19
Surr: Nitrobenzene-d5	S	47.8	0	30-130		%REC	1	04/24/08 20:19
Surr: Phenol-d5	S	48.5	0	30-130		%REC	1	04/24/08 20:19
Surr: Terphenyl-d14	S	78.0	0	30-130		%REC	1	04/24/08 20:19

PAHS BY GC/MS-SIM	Method: TO-13		Prep Date/Time: 04/23/08 12:00 Analyst: BEM					
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	04/24/08 20:19
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	04/24/08 20:19
Anthracene	A	ND	0.27	1.0		µg, Total	1	04/24/08 20:19
Benzo[a]anthracene	A	0.53	0.47	1.0	J	µg, Total	1	04/24/08 20:19
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	04/24/08 20:19
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	04/24/08 20:19
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	04/24/08 20:19
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	04/24/08 20:19
Chrysene	A	ND	0.57	1.0		µg, Total	1	04/24/08 20:19
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	04/24/08 20:19
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	04/24/08 20:19
Fluorene	A	ND	0.25	1.0		µg, Total	1	04/24/08 20:19
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	04/24/08 20:19
Naphthalene	A	2.3	0.16	1.0		µg, Total	1	04/24/08 20:19
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	04/24/08 20:19
Pyrene	A	1.6	0.44	1.0	b	µg, Total	1	04/24/08 20:19
Surr: Nitrobenzene-d5	S	47.8	0	30-130		%REC	1	04/24/08 20:19
Surr: 2-Fluorobiphenyl	S	54.9	0	30-130		%REC	1	04/24/08 20:19
Surr: Terphenyl-d14	S	78.0	0	30-130		%REC	1	04/24/08 20:19

6/13/08



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

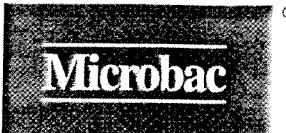
**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #4 TOX 1 Influent (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-04A  
**Collection Date:** 04/17/08 10:38  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE	Method:	TO-13MOD			Prep Date/Time:	04/23/08 12:00	Analyst:	BEM
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	04/24/08 20:38
1,2-Dichlorobenzene	A	1.4	0.7	10	J	µg, Total	1	04/24/08 20:38
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	04/24/08 20:38
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	04/24/08 20:38
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	04/24/08 20:38
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	04/24/08 20:38
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	04/24/08 20:38
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	04/24/08 20:38
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	04/24/08 20:38
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	04/24/08 20:38
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	04/24/08 20:38
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	04/24/08 20:38
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	04/24/08 20:38
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	04/24/08 20:38
2-Methylphenol	A	ND	0.7	10		µg, Total	1	04/24/08 20:38
2-Nitroaniline	A	ND	1	50		µg, Total	1	04/24/08 20:38
2-Nitrophenol	A	ND	1	10		µg, Total	1	04/24/08 20:38
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	04/24/08 20:38
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	04/24/08 20:38
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	04/24/08 20:38
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	04/24/08 20:38
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	04/24/08 20:38
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	04/24/08 20:38
4-Chloroaniline	A	ND	1	20		µg, Total	1	04/24/08 20:38
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	04/24/08 20:38
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	04/24/08 20:38
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	04/24/08 20:38
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	04/24/08 20:38
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	04/24/08 20:38
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	04/24/08 20:38
Bis(2-ethylhexyl)phthalate	A	1.9	1.1	10	Jb	µg, Total	1	04/24/08 20:38
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	04/24/08 20:38
Carbazole	A	ND	1.2	10		µg, Total	1	04/24/08 20:38
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	04/24/08 20:38
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	04/24/08 20:38
Dibenzofuran	A	ND	0.8	10		µg, Total	1	04/24/08 20:38
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	04/24/08 20:38
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	04/24/08 20:38
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	04/24/08 20:38

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #4 TOX 1 Influent (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-04A  
**Collection Date:** 04/17/08 10:38  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE	Method: TO-13MOD		Prep Date/Time: 04/23/08 12:00 Analyst: BEM					
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	04/24/08 20:38
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	04/24/08 20:38
Hexachloroethane	A	ND	0.9	10		µg, Total	1	04/24/08 20:38
Isophorone	A	ND	1	10		µg, Total	1	04/24/08 20:38
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	04/24/08 20:38
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	04/24/08 20:38
Nitrobenzene	A	ND	1	10		µg, Total	1	04/24/08 20:38
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	04/24/08 20:38
Phenol	A	ND	0.4	10		µg, Total	1	04/24/08 20:38
Surr: 2,4,6-Tribromophenol	S	47.7	0	30-130		%REC	1	04/24/08 20:38
Surr: 2-Fluorobiphenyl	S	45.5	0	30-130		%REC	1	04/24/08 20:38
Surr: 2-Fluorophenol	S	39.8	0	30-130		%REC	1	04/24/08 20:38
Surr: Nitrobenzene-d5	S	43.7	0	30-130		%REC	1	04/24/08 20:38
Surr: Phenol-d5	S	44.4	0	30-130		%REC	1	04/24/08 20:38
Surr: Terphenyl-d14	S	58.9	0	30-130		%REC	1	04/24/08 20:38

PAHS BY GC/MS-SIM	Method: TO-13		Prep Date/Time: 04/23/08 12:00 Analyst: BEM					
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	04/24/08 20:38
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	04/24/08 20:38
Anthracene	A	ND	0.27	1.0		µg, Total	1	04/24/08 20:38
Benz[a]anthracene	A	ND	0.47	1.0		µg, Total	1	04/24/08 20:38
Benz[a]pyrene	A	ND	0.38	1.0		µg, Total	1	04/24/08 20:38
Benz[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	04/24/08 20:38
Benz[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	04/24/08 20:38
Benz[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	04/24/08 20:38
Chrysene	A	ND	0.57	1.0		µg, Total	1	04/24/08 20:38
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	04/24/08 20:38
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	04/24/08 20:38
Fluorene	A	ND	0.25	1.0		µg, Total	1	04/24/08 20:38
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	04/24/08 20:38
Naphthalene	A	0.69	0.16	1.0	J	µg, Total	1	04/24/08 20:38
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	04/24/08 20:38
Pyrene	A	0.76	0.44	1.0	Jb	µg, Total	1	04/24/08 20:38
Surr: Nitrobenzene-d5	S	43.7	0	30-130		%REC	1	04/24/08 20:38
Surr: 2-Fluorobiphenyl	S	45.5	0	30-130		%REC	1	04/24/08 20:38
Surr: Terphenyl-d14	S	58.9	0	30-130		%REC	1	04/24/08 20:38

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

100-73108



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #5 TOX 1 Effluent  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-05A  
**Collection Date:** 04/17/08 10:18  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD		Prep Date/Time: 04/23/08 12:00				Analyst: BEM
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	04/24/08 20:57
1,2-Dichlorobenzene	A	ND	0.7	10		µg, Total	1	04/24/08 20:57
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	04/24/08 20:57
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	04/24/08 20:57
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	04/24/08 20:57
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	04/24/08 20:57
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	04/24/08 20:57
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	04/24/08 20:57
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	04/24/08 20:57
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	04/24/08 20:57
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	04/24/08 20:57
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	04/24/08 20:57
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	04/24/08 20:57
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	04/24/08 20:57
2-Methylphenol	A	ND	0.7	10		µg, Total	1	04/24/08 20:57
2-Nitroaniline	A	ND	1	50		µg, Total	1	04/24/08 20:57
2-Nitrophenol	A	ND	1	10		µg, Total	1	04/24/08 20:57
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	04/24/08 20:57
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	04/24/08 20:57
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	04/24/08 20:57
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	04/24/08 20:57
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	04/24/08 20:57
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	04/24/08 20:57
4-Chloroaniline	A	ND	1	20		µg, Total	1	04/24/08 20:57
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	04/24/08 20:57
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	04/24/08 20:57
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	04/24/08 20:57
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	04/24/08 20:57
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	04/24/08 20:57
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	04/24/08 20:57
Bis(2-ethylhexyl)phthalate	A	2	1.1	10	Jb	µg, Total	1	04/24/08 20:57
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	04/24/08 20:57
Carbazole	A	ND	1.2	10		µg, Total	1	04/24/08 20:57
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	04/24/08 20:57
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	04/24/08 20:57
Dibenzofuran	A	ND	0.8	10		µg, Total	1	04/24/08 20:57
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	04/24/08 20:57
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	04/24/08 20:57
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	04/24/08 20:57

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #5 TOX 1 Effluent  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-05A  
**Collection Date:** 04/17/08 10:18  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD		Prep Date/Time: 04/23/08 12:00 Analyst: BEM				
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	04/24/08 20:57
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	04/24/08 20:57
Hexachloroethane	A	ND	0.9	10		µg, Total	1	04/24/08 20:57
Isophorone	A	ND	1	10		µg, Total	1	04/24/08 20:57
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	04/24/08 20:57
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	04/24/08 20:57
Nitrobenzene	A	ND	1	10		µg, Total	1	04/24/08 20:57
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	04/24/08 20:57
Phenol	A	ND	0.4	10		µg, Total	1	04/24/08 20:57
Surr: 2,4,6-Tribromophenol	S	70.3	0	30-130		%REC	1	04/24/08 20:57
Surr: 2-Fluorobiphenyl	S	63.1	0	30-130		%REC	1	04/24/08 20:57
Surr: 2-Fluorophenol	S	52.7	0	30-130		%REC	1	04/24/08 20:57
Surr: Nitrobenzene-d5	S	59.6	0	30-130		%REC	1	04/24/08 20:57
Surr: Phenol-d5	S	58.9	0	30-130		%REC	1	04/24/08 20:57
Surr: Terphenyl-d14	S	83.8	0	30-130		%REC	1	04/24/08 20:57

PAHS BY GC/MS-SIM		Method: TO-13		Prep Date/Time: 04/23/08 12:00 Analyst: BEM				
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	04/24/08 20:57
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	04/24/08 20:57
Anthracene	A	ND	0.27	1.0		µg, Total	1	04/24/08 20:57
Benzo[a]anthracene	A	0.49	0.47	1.0	J	µg, Total	1	04/24/08 20:57
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	04/24/08 20:57
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	04/24/08 20:57
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	04/24/08 20:57
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	04/24/08 20:57
Chrysene	A	ND	0.57	1.0		µg, Total	1	04/24/08 20:57
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	04/24/08 20:57
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	04/24/08 20:57
Fluorene	A	ND	0.25	1.0		µg, Total	1	04/24/08 20:57
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	04/24/08 20:57
Naphthalene	A	ND	0.16	1.0		µg, Total	1	04/24/08 20:57
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	04/24/08 20:57
Pyrene	A	1.0	0.44	1.0	b	µg, Total	1	04/24/08 20:57
Surr: Nitrobenzene-d5	S	59.6	0	30-130		%REC	1	04/24/08 20:57
Surr: 2-Fluorobiphenyl	S	63.1	0	30-130		%REC	1	04/24/08 20:57
Surr: Terphenyl-d14	S	83.8	0	30-130		%REC	1	04/24/08 20:57



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #6 TOX 2 Influent  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-06A  
**Collection Date:** 04/17/08 11:10  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD		Prep Date/Time: 04/23/08 12:00				Analyst: BEM
1,2,4-Trichlorobenzene	A	ND	0.9	10		ug, Total	1	04/24/08 21:17
1,2-Dichlorobenzene	A	5.9	0.7	10	J	ug, Total	1	04/24/08 21:17
1,3-Dichlorobenzene	A	ND	0.8	10		ug, Total	1	04/24/08 21:17
1,4-Dichlorobenzene	A	1.4	0.9	10	J	ug, Total	1	04/24/08 21:17
2,4,5-Trichlorophenol	A	ND	1.5	10		ug, Total	1	04/24/08 21:17
2,4,6-Trichlorophenol	A	ND	0.9	10		ug, Total	1	04/24/08 21:17
2,4-Dichlorophenol	A	ND	0.7	10		ug, Total	1	04/24/08 21:17
2,4-Dimethylphenol	A	ND	0.8	10		ug, Total	1	04/24/08 21:17
2,4-Dinitrophenol	A	ND	9.4	50		ug, Total	1	04/24/08 21:17
2,4-Dinitrotoluene	A	ND	0.8	10		ug, Total	1	04/24/08 21:17
2,6-Dinitrotoluene	A	ND	1.1	10		ug, Total	1	04/24/08 21:17
2-Chloronaphthalene	A	ND	0.9	10		ug, Total	1	04/24/08 21:17
2-Chlorophenol	A	ND	0.7	10		ug, Total	1	04/24/08 21:17
2-Methylnaphthalene	A	0.99	0.9	10	J	ug, Total	1	04/24/08 21:17
2-Methylphenol	A	ND	0.7	10		ug, Total	1	04/24/08 21:17
2-Nitroaniline	A	ND	1	50		ug, Total	1	04/24/08 21:17
2-Nitrophenol	A	ND	1	10		ug, Total	1	04/24/08 21:17
3,3'-Dichlorobenzidine	A	ND	0.7	50		ug, Total	1	04/24/08 21:17
3-Nitroaniline	A	ND	1.3	50		ug, Total	1	04/24/08 21:17
3/4-Methylphenol	A	ND	0.8	10		ug, Total	1	04/24/08 21:17
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		ug, Total	1	04/24/08 21:17
4-Bromophenyl phenyl ether	A	ND	0.9	10		ug, Total	1	04/24/08 21:17
4-Chloro-3-methylphenol	A	ND	1.2	20		ug, Total	1	04/24/08 21:17
4-Chloroaniline	A	ND	1	20		ug, Total	1	04/24/08 21:17
4-Chlorophenyl phenyl ether	A	ND	0.9	10		ug, Total	1	04/24/08 21:17
4-Nitroaniline	A	ND	1.7	50		ug, Total	1	04/24/08 21:17
4-Nitrophenol	A	ND	4.3	50		ug, Total	1	04/24/08 21:17
Bis(2-chloroethoxy)methane	A	ND	1	10		ug, Total	1	04/24/08 21:17
Bis(2-chloroethyl)ether	A	ND	0.9	10		ug, Total	1	04/24/08 21:17
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		ug, Total	1	04/24/08 21:17
Bis(2-ethylhexyl)phthalate	A	23	1.1	10	b	ug, Total	1	04/24/08 21:17
Butyl benzyl phthalate	A	ND	1	10		ug, Total	1	04/24/08 21:17
Carbazole	A	ND	1.2	10		ug, Total	1	04/24/08 21:17
Di-n-butyl phthalate	A	ND	1.2	10		ug, Total	1	04/24/08 21:17
Di-n-octyl phthalate	A	ND	1.1	10		ug, Total	1	04/24/08 21:17
Dibenzofuran	A	ND	0.8	10		ug, Total	1	04/24/08 21:17
Diethyl phthalate	A	ND	1.1	10		ug, Total	1	04/24/08 21:17
Dimethyl phthalate	A	ND	0.9	10		ug, Total	1	04/24/08 21:17
Hexachlorobenzene	A	ND	0.9	10		ug, Total	1	04/24/08 21:17

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #6 TOX 2 Influent  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-06A  
**Collection Date:** 04/17/08 11:10  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE	Method: TO-13MOD		Prep Date/Time: 04/23/08 12:00 Analyst: BEM					
Hexachlorobutadiene	A	0.93	0.9	10	J	µg, Total	1	04/24/08 21:17
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	04/24/08 21:17
Hexachloroethane	A	ND	0.9	10		µg, Total	1	04/24/08 21:17
Isophorone	A	7.9	1	10	J	µg, Total	1	04/24/08 21:17
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	04/24/08 21:17
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	04/24/08 21:17
Nitrobenzene	A	ND	1	10		µg, Total	1	04/24/08 21:17
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	04/24/08 21:17
Phenol	A	ND	0.4	10		µg, Total	1	04/24/08 21:17
Surr: 2,4,6-Tribromophenol	S	72.3	0	30-130		%REC	1	04/24/08 21:17
Surr: 2-Fluorobiphenyl	S	71.2	0	30-130		%REC	1	04/24/08 21:17
Surr: 2-Fluorophenol	S	42.2	0	30-130		%REC	1	04/24/08 21:17
Surr: Nitrobenzene-d5	S	63.3	0	30-130		%REC	1	04/24/08 21:17
Surr: Phenol-d5	S	62.5	0	30-130		%REC	1	04/24/08 21:17
Surr: Terphenyl-d14	S	83.3	0	30-130		%REC	1	04/24/08 21:17

PAHS BY GC/MS-SIM	Method: TO-13		Prep Date/Time: 04/23/08 12:00 Analyst: BEM					
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	04/24/08 21:17
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	04/24/08 21:17
Anthracene	A	ND	0.27	1.0		µg, Total	1	04/24/08 21:17
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	04/24/08 21:17
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	04/24/08 21:17
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	04/24/08 21:17
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	04/24/08 21:17
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	04/24/08 21:17
Chrysene	A	ND	0.57	1.0		µg, Total	1	04/24/08 21:17
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	04/24/08 21:17
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	04/24/08 21:17
Fluorene	A	ND	0.25	1.0		µg, Total	1	04/24/08 21:17
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	04/24/08 21:17
Naphthalene	A	10	0.16	1.0		µg, Total	1	04/24/08 21:17
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	04/24/08 21:17
Pyrene	A	0.87	0.44	1.0	Jb	µg, Total	1	04/24/08 21:17
Surr: Nitrobenzene-d5	S	63.3	0	30-130		%REC	1	04/24/08 21:17
Surr: 2-Fluorobiphenyl	S	71.2	0	30-130		%REC	1	04/24/08 21:17
Surr: Terphenyl-d14	S	83.3	0	30-130		%REC	1	04/24/08 21:17

6/23/08



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

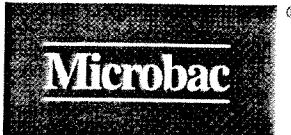
**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #7 TOX 2 Influent (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-07A  
**Collection Date:** 04/17/08 11:25  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE	Method:	TO-13MOD			Prep Date/Time:	04/23/08 12:00	Analyst:	BEM
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	04/24/08 21:36
1,2-Dichlorobenzene	A	5.9	0.7	10	J	µg, Total	1	04/24/08 21:36
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	04/24/08 21:36
1,4-Dichlorobenzene	A	1.2	0.9	10	J	µg, Total	1	04/24/08 21:36
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	04/24/08 21:36
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	04/24/08 21:36
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	04/24/08 21:36
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	04/24/08 21:36
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	04/24/08 21:36
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	04/24/08 21:36
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	04/24/08 21:36
2-Choronaphthalene	A	ND	0.9	10		µg, Total	1	04/24/08 21:36
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	04/24/08 21:36
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	04/24/08 21:36
2-Methylphenol	A	ND	0.7	10		µg, Total	1	04/24/08 21:36
2-Nitroaniline	A	ND	1	50		µg, Total	1	04/24/08 21:36
2-Nitrophenol	A	ND	1	10		µg, Total	1	04/24/08 21:36
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	04/24/08 21:36
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	04/24/08 21:36
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	04/24/08 21:36
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	04/24/08 21:36
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	04/24/08 21:36
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	04/24/08 21:36
4-Chloroaniline	A	ND	1	20		µg, Total	1	04/24/08 21:36
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	04/24/08 21:36
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	04/24/08 21:36
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	04/24/08 21:36
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	04/24/08 21:36
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	04/24/08 21:36
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	04/24/08 21:36
Bis(2-ethylhexyl)phthalate	A	10	1.1	10	b	µg, Total	1	04/24/08 21:36
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	04/24/08 21:36
Carbazole	A	ND	1.2	10		µg, Total	1	04/24/08 21:36
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	04/24/08 21:36
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	04/24/08 21:36
Dibenzofuran	A	ND	0.8	10		µg, Total	1	04/24/08 21:36
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	04/24/08 21:36
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	04/24/08 21:36
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	04/24/08 21:36

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #7 TOX 2 Influent (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-07A  
**Collection Date:** 04/17/08 11:25  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
						Prep Date/Time: 04/23/08 12:00	Analyst: BEM	
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	04/24/08 21:36
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	04/24/08 21:36
Hexachloroethane	A	ND	0.9	10		µg, Total	1	04/24/08 21:36
Isophorone	A	6.6	1	10	J	µg, Total	1	04/24/08 21:36
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	04/24/08 21:36
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	04/24/08 21:36
Nitrobenzene	A	ND	1	10		µg, Total	1	04/24/08 21:36
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	04/24/08 21:36
Phenol	A	ND	0.4	10		µg, Total	1	04/24/08 21:36
Surr: 2,4,6-Tribromophenol	S	69.8	0	30-130		%REC	1	04/24/08 21:36
Surr: 2-Fluorobiphenyl	S	61.6	0	30-130		%REC	1	04/24/08 21:36
Surr: 2-Fluorophenol	S	37.9	0	30-130		%REC	1	04/24/08 21:36
Surr: Nitrobenzene-d5	S	57.7	0	30-130		%REC	1	04/24/08 21:36
Surr: Phenol-d5	S	58.4	0	30-130		%REC	1	04/24/08 21:36
Surr: Terphenyl-d14	S	80.6	0	30-130		%REC	1	04/24/08 21:36

PAHS BY GC/MS-SIM		Method: TO-13						
						Prep Date/Time: 04/23/08 12:00	Analyst: BEM	
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	04/24/08 21:36
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	04/24/08 21:36
Anthracene	A	ND	0.27	1.0		µg, Total	1	04/24/08 21:36
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	04/24/08 21:36
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	04/24/08 21:36
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	04/24/08 21:36
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	04/24/08 21:36
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	04/24/08 21:36
Chrysene	A	ND	0.57	1.0		µg, Total	1	04/24/08 21:36
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	04/24/08 21:36
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	04/24/08 21:36
Fluorene	A	ND	0.25	1.0		µg, Total	1	04/24/08 21:36
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	04/24/08 21:36
Naphthalene	A	8.3	0.16	1.0		µg, Total	1	04/24/08 21:36
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	04/24/08 21:36
Pyrene	A	0.52	0.44	1.0	Jb	µg, Total	1	04/24/08 21:36
Surr: Nitrobenzene-d5	S	57.7	0	30-130		%REC	1	04/24/08 21:36
Surr: 2-Fluorobiphenyl	S	61.6	0	30-130		%REC	1	04/24/08 21:36
Surr: Terphenyl-d14	S	80.6	0	30-130		%REC	1	04/24/08 21:36

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

6/23/08



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #8 TOX 2 Effluent  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-08A  
**Collection Date:** 04/17/08 11:30  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE	Method:	Prep Date/Time: 04/23/08 12:00 Analyst: BEM						
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	04/24/08 21:56
1,2-Dichlorobenzene	A	ND	0.7	10		µg, Total	1	04/24/08 21:56
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	04/24/08 21:56
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	04/24/08 21:56
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	04/24/08 21:56
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	04/24/08 21:56
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	04/24/08 21:56
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	04/24/08 21:56
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	04/24/08 21:56
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	04/24/08 21:56
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	04/24/08 21:56
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	04/24/08 21:56
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	04/24/08 21:56
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	04/24/08 21:56
2-Methylphenol	A	ND	0.7	10		µg, Total	1	04/24/08 21:56
2-Nitroaniline	A	ND	1	50		µg, Total	1	04/24/08 21:56
2-Nitrophenol	A	ND	1	10		µg, Total	1	04/24/08 21:56
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	04/24/08 21:56
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	04/24/08 21:56
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	04/24/08 21:56
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	04/24/08 21:56
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	04/24/08 21:56
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	04/24/08 21:56
4-Chloroaniline	A	ND	1	20		µg, Total	1	04/24/08 21:56
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	04/24/08 21:56
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	04/24/08 21:56
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	04/24/08 21:56
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	04/24/08 21:56
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	04/24/08 21:56
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	04/24/08 21:56
Bis(2-ethylhexyl)phthalate	A	11	1.1	10	b	µg, Total	1	04/24/08 21:56
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	04/24/08 21:56
Carbazole	A	ND	1.2	10		µg, Total	1	04/24/08 21:56
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	04/24/08 21:56
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	04/24/08 21:56
Dibenzofuran	A	ND	0.8	10		µg, Total	1	04/24/08 21:56
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	04/24/08 21:56
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	04/24/08 21:56
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	04/24/08 21:56

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664



## ANALYTICAL RESULTS

Date: Tuesday, May 13, 2008

**Client:** MWH, Inc.  
**Client Project:** April 2008 - Monthly Air / ACS  
**Client Sample ID:** #8 TOX 2 Effluent  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0804739-08A  
**Collection Date:** 04/17/08 11:30  
**Date Received:** 04/17/08 14:20

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD Prep Date/Time: 04/23/08 12:00 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	04/24/08 21:56
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	04/24/08 21:56
Hexachloroethane	A	ND	0.9	10		µg, Total	1	04/24/08 21:56
Isophorone	A	ND	1	10		µg, Total	1	04/24/08 21:56
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	04/24/08 21:56
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	04/24/08 21:56
Nitrobenzene	A	ND	1	10		µg, Total	1	04/24/08 21:56
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	04/24/08 21:56
Phenol	A	ND	0.4	10		µg, Total	1	04/24/08 21:56
Surr: 2,4,6-Tribromophenol	S	55.1	0	30-130		%REC	1	04/24/08 21:56
Surr: 2-Fluorobiphenyl	S	53.7	0	30-130		%REC	1	04/24/08 21:56
Surr: 2-Fluorophenol	S	50.1	0	30-130		%REC	1	04/24/08 21:56
Surr: Nitrobenzene-d5	S	57.9	0	30-130		%REC	1	04/24/08 21:56
Surr: Phenol-d5	S	52.8	0	30-130		%REC	1	04/24/08 21:56
Surr: Terphenyl-d14	S	73.5	0	30-130		%REC	1	04/24/08 21:56

PAHS BY GC/MS-SIM		Method: TO-13 Prep Date/Time: 04/23/08 12:00 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	04/24/08 21:56
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	04/24/08 21:56
Anthracene	A	ND	0.27	1.0		µg, Total	1	04/24/08 21:56
Benzo[a]anthracene	A	0.66	0.47	1.0	J	µg, Total	1	04/24/08 21:56
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	04/24/08 21:56
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	04/24/08 21:56
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	04/24/08 21:56
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	04/24/08 21:56
Chrysene	A	ND	0.57	1.0		µg, Total	1	04/24/08 21:56
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	04/24/08 21:56
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	04/24/08 21:56
Fluorene	A	ND	0.25	1.0		µg, Total	1	04/24/08 21:56
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	04/24/08 21:56
Naphthalene	A	0.18	0.16	1.0	J	µg, Total	1	04/24/08 21:56
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	04/24/08 21:56
Pyrene	A	0.71	0.44	1.0	Jb	µg, Total	1	04/24/08 21:56
Surr: Nitrobenzene-d5	S	57.9	0	30-130		%REC	1	04/24/08 21:56
Surr: 2-Fluorobiphenyl	S	53.7	0	30-130		%REC	1	04/24/08 21:56
Surr: Terphenyl-d14	S	73.5	0	30-130		%REC	1	04/24/08 21:56

1.0 kB

**May 15, 2008 Off-Gas Sample Laboratory Results**



## ANALYTICAL RESULTS

Date: Wednesday, June 04, 2008

**Client:** MWH, Inc.  
**Client Project:** March 2008 - Monthly Air / ACS  
**Client Sample ID:** #2 SBPA ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0805616-02B  
**Collection Date:** 05/15/08 13:52  
**Date Received:** 05/15/08 15:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

TOXIC ORGANICS IN AIR BY GC/MS	Method: TO-15		Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	5500	24	150	ppbv	300	05/30/08 23:24	
1,1,2,2-Tetrachloroethane	A	ND	8.4	30	ppbv	60	05/31/08 00:09	
1,1,2-Trichloroethane	A	19	6.6	30	J ppbv	60	05/31/08 00:09	
1,1-Dichloroethane	A	1200	6	30	ppbv	60	05/31/08 00:09	
1,1-Dichloroethene	A	92	4.2	30	ppbv	60	05/31/08 00:09	
1,2-Dichloroethane	A	91	6	30	ppbv	60	05/31/08 00:09	
1,2-Dichloropropane	A	110	5.4	30	ppbv	60	05/31/08 00:09	
2-Butanone	A	110	13	120	J ppbv	60	05/31/08 00:09	120 UB
2-Hexanone	A	130	6.6	120	ppbv	60	05/31/08 00:09	
4-Methyl-2-Pentanone	A	360	9.6	30	ppbv	60	05/31/08 00:09	
Acetone	A	160	7.2	120	ppbv	60	05/31/08 00:09	UB
Benzene	A	960	6	30	ppbv	60	05/31/08 00:09	
Bromodichloromethane	A	34	6	30	ppbv	60	05/31/08 00:09	
Bromoform	A	ND	5.4	30	ppbv	60	05/31/08 00:09	
Bromomethane	A	ND	4.8	30	ppbv	60	05/31/08 00:09	
Carbon disulfide	A	320	20	120	ppbv	60	05/31/08 00:09	
Carbon tetrachloride	A	ND	6.6	30	ppbv	60	05/31/08 00:09	
Chlorobenzene	A	100	6.6	30	ppbv	60	05/31/08 00:09	
Chloroethane	A	520	6.6	30	ppbv	60	05/31/08 00:09	
Chloroform	A	1500	32	150	ppbv	300	05/30/08 23:24	
Chloromethane	A	ND	4.2	120	ppbv	60	05/31/08 00:09	
cis-1,2-Dichloroethene	A	24000	220	1200	ppbv	1,00	05/30/08 22:39	
cis-1,3-Dichloropropene	A	ND	6	30	ppbv	60	05/31/08 00:09	
Dibromochloromethane	A	ND	4.2	30	ppbv	60	05/31/08 00:09	
Ethyl benzene	A	1900	32	150	ppbv	300	05/30/08 23:24	
m,p-Xylene	A	7800	38	290	ppbv	300	05/30/08 23:24	
Methylene chloride	A	1000	26	240	ppbv	60	05/31/08 00:09	
o-Xylene	A	4200	38	150	ppbv	300	05/30/08 23:24	
Styrene	A	43	7.8	30	ppbv	60	05/31/08 00:09	
Tetrachloroethene	A	19000	270	1200	ppbv	1,00	05/30/08 22:39	
Toluene	A	13000	270	1200	ppbv	1,00	05/30/08 22:39	
trans-1,2-Dichloroethene	A	93	4.8	30	ppbv	60	05/31/08 00:09	
trans-1,3-Dichloropropene	A	ND	6	30	ppbv	60	05/31/08 00:09	
Trichloroethene	A	4600	32	150	ppbv	300	05/30/08 23:24	
Vinyl chloride	A	2500	24	150	ppbv	300	05/30/08 23:24	
Surr: 4-Bromofluorobenzene	S	98.9	0	77.7-127	%REC	60	05/31/08 00:09	

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

## ANALYTICAL RESULTS

Date: Wednesday, June 04, 2008

**Client:** MWH, Inc.  
**Client Project:** March 2008 - Monthly Air / ACS  
**Client Sample ID:** #3 TOX 1 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0805616-03B  
**Collection Date:** 05/15/08 14:00  
**Date Received:** 05/15/08 15:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

TOXIC ORGANICS IN AIR BY GC/MS	Method:	TO-15			Prep Date/Time:		Analyst:	MAK
1,1,1-Trichloroethane	A	3500	24	150	ppbv	300	05/31/08 01:37	
1,1,2,2-Tetrachloroethane	A	16	8.4	30	J	ppbv	60	05/31/08 02:19
1,1,2-Trichloroethane	A	ND	6.6	30	ppbv	60	05/31/08 02:19	
1,1-Dichloroethane	A	830	6	30	ppbv	60	05/31/08 02:19	
1,1-Dichloroethene	A	63	4.2	30	ppbv	60	05/31/08 02:19	
1,2-Dichloroethane	A	62	6	30	ppbv	60	05/31/08 02:19	
1,2-Dichloropropane	A	80	5.4	30	ppbv	60	05/31/08 02:19	
2-Butanone	A	150	13	120	ppbv	60	05/31/08 02:19	
2-Hexanone	A	78	6.6	120	J	ppbv	60	05/31/08 02:19
4-Methyl-2-Pentanone	A	970	9.6	30	ppbv	60	05/31/08 02:19	URB
Acetone	A	190	7.2	120	ppbv	60	05/31/08 02:19	
Benzene	A	690	6	30	ppbv	60	05/31/08 02:19	
Bromodichloromethane	A	28	6	30	J	ppbv	60	05/31/08 02:19
Bromoform	A	ND	5.4	30	ppbv	60	05/31/08 02:19	
Bromomethane	A	ND	4.8	30	ppbv	60	05/31/08 02:19	
Carbon disulfide	A	1300	97	590	ppbv	300	05/31/08 01:37	
Carbon tetrachloride	A	ND	6.6	30	ppbv	60	05/31/08 02:19	
Chlorobenzene	A	74	6.6	30	ppbv	60	05/31/08 02:19	
Chloroethane	A	360	6.6	30	ppbv	60	05/31/08 02:19	
Chloroform	A	950	6.6	30	ppbv	60	05/31/08 02:19	
Chloromethane	A	ND	4.2	120	ppbv	60	05/31/08 02:19	
cis-1,2-Dichloroethene	A	18000	220	1200	ppbv	300	05/31/08 00:53	
cis-1,3-Dichloropropene	A	ND	6	30	ppbv	60	05/31/08 02:19	
Dibromochloromethane	A	ND	4.2	30	ppbv	60	05/31/08 02:19	
Ethyl benzene	A	1400	32	150	ppbv	300	05/31/08 01:37	
m,p-Xylene	A	6000	38	290	ppbv	300	05/31/08 01:37	
Methylene chloride	A	700	26	240	ppbv	60	05/31/08 02:19	
o-Xylene	A	3200	38	150	ppbv	300	05/31/08 01:37	
Styrene	A	47	7.8	30	ppbv	60	05/31/08 02:19	
Tetrachloroethene	A	15000	270	1200	ppbv	300	05/31/08 00:53	
Toluene	A	5100	32	150	ppbv	300	05/31/08 01:37	
trans-1,2-Dichloroethene	A	65	4.8	30	ppbv	60	05/31/08 02:19	
trans-1,3-Dichloropropene	A	ND	6	30	ppbv	60	05/31/08 02:19	
Trichloroethene	A	3100	32	150	ppbv	300	05/31/08 01:37	
Vinyl chloride	A	1800	24	150	ppbv	300	05/31/08 01:37	
Surr: 4-Bromofluorobenzene	S	95.7	0	77.7-127	%REC	60	05/31/08 02:19	

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

## ANALYTICAL RESULTS

Date: Wednesday, June 04, 2008

**Client:** MWH, Inc.  
**Client Project:** March 2008 - Monthly Air / ACS  
**Client Sample ID:** #5 TOX 1 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0805616-04B  
**Collection Date:** 05/15/08 14:05  
**Date Received:** 05/15/08 15:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15			Prep Date/Time:		Analyst: MAK
1,1,1-Trichloroethane	A	320	3.3	21	ppbv	50	05/31/08 03:01
1,1,2,2-Tetrachloroethane	A	0.3	0.14	0.50	J ppbv	1	05/31/08 04:26
1,1,2-Trichloroethane	A	0.72	0.11	0.50	ppbv	1	05/31/08 04:26
1,1-Dichloroethane	A	44	0.49	2.4	ppbv	5	05/31/08 03:43
1,1-Dichloroethene	A	2.9	0.07	0.50	ppbv	1	05/31/08 04:26
1,2-Dichloroethane	A	2.9	0.1	0.50	ppbv	1	05/31/08 04:26
1,2-Dichloropropane	A	3.8	0.09	0.50	ppbv	1	05/31/08 04:26
2-Butanone	A	6.3	0.21	2.0	b ppbv	1	05/31/08 04:26
2-Hexanone	A	3.5	0.11	2.0	ppbv	1	05/31/08 04:26
4-Methyl-2-Pentanone	A	14	0.16	0.50	ppbv	1	05/31/08 04:26
Acetone	A	13	0.12	2.0	b ppbv	1	05/31/08 04:26
Benzene	A	45	0.49	2.4	ppbv	5	05/31/08 03:43
Bromodichloromethane	A	1.2	0.1	0.50	ppbv	1	05/31/08 04:26
Bromoform	A	ND	0.09	0.50	ppbv	1	05/31/08 04:26
Bromomethane	A	ND	0.08	0.50	ppbv	1	05/31/08 04:26
Carbon disulfide	A	ND	0.33	2.0	ppbv	1	05/31/08 04:26
Carbon tetrachloride	A	ND	0.11	0.50	ppbv	1	05/31/08 04:26
Chlorobenzene	A	3.6	0.11	0.50	ppbv	1	05/31/08 04:26
Chloroethane	A	0.70	0.11	0.50	ppbv	1	05/31/08 04:26
Chloroform	A	47	0.54	2.4	ppbv	5	05/31/08 03:43
Chloromethane	A	1	0.07	2.0	J ppbv	1	05/31/08 04:26
cis-1,2-Dichloroethene	A	820	3.7	21	ppbv	50	05/31/08 03:01
cis-1,3-Dichloropropene	A	ND	0.1	0.50	ppbv	1	05/31/08 04:26
Dibromochloromethane	A	ND	0.07	0.50	ppbv	1	05/31/08 04:26
Ethyl benzene	A	71	0.54	2.4	ppbv	5	05/31/08 03:43
m,p-Xylene	A	470	5.4	42	ppbv	50	05/31/08 03:01
Methylene chloride	A	14	0.43	4.0	ppbv	1	05/31/08 04:26
o-Xylene	A	240	5.4	21	ppbv	50	05/31/08 03:01
Styrene	A	3.7	0.13	0.50	ppbv	1	05/31/08 04:26
Tetrachloroethene	A	610	4.6	21	ppbv	50	05/31/08 03:01
Toluene	A	460	4.6	21	ppbv	50	05/31/08 03:01
trans-1,2-Dichloroethene	A	7.1	0.08	0.50	ppbv	1	05/31/08 04:26
trans-1,3-Dichloropropene	A	ND	0.1	0.50	ppbv	1	05/31/08 04:26
Trichloroethene	A	290	4.6	21	ppbv	50	05/31/08 03:01
Vinyl chloride	A	91	0.39	2.4	ppbv	5	05/31/08 03:43
Surr: 4-Bromofluorobenzene	S	99.2	0	77.7-127	%REC	1	05/31/08 04:26

## ANALYTICAL RESULTS

Date: Wednesday, June 04, 2008

**Client:** MWH, Inc.  
**Client Project:** March 2008 - Monthly Air / ACS  
**Client Sample ID:** #2 SBPA ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0805616-02A  
**Collection Date:** 05/15/08 13:52  
**Date Received:** 05/15/08 15:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD	Prep Date/Time: 05/22/08 19:03 Analyst: BEM					
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	05/23/08 20:29
1,2-Dichlorobenzene	A	4.5	0.7	10	J	µg, Total	1	05/23/08 20:29
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	05/23/08 20:29
1,4-Dichlorobenzene	A	1.5	0.9	10	J	µg, Total	1	05/23/08 20:29
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	05/23/08 20:29
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	05/23/08 20:29
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	05/23/08 20:29
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	05/23/08 20:29
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	05/23/08 20:29
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	05/23/08 20:29
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	05/23/08 20:29
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	05/23/08 20:29
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	05/23/08 20:29
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	05/23/08 20:29
2-Methylphenol	A	ND	0.7	10		µg, Total	1	05/23/08 20:29
2-Nitroaniline	A	ND	1	50		µg, Total	1	05/23/08 20:29
2-Nitrophenol	A	ND	1	10		µg, Total	1	05/23/08 20:29
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	05/23/08 20:29
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	05/23/08 20:29
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	05/23/08 20:29
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	05/23/08 20:29
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	05/23/08 20:29
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	05/23/08 20:29
4-Chloroaniline	A	ND	1	20		µg, Total	1	05/23/08 20:29
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	05/23/08 20:29
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	05/23/08 20:29
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	05/23/08 20:29
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	05/23/08 20:29
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	05/23/08 20:29
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	05/23/08 20:29
Bis(2-ethylhexyl)phthalate	A	2.1	1.1	10	J	µg, Total	1	05/23/08 20:29
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	05/23/08 20:29
Carbazole	A	ND	1.2	10		µg, Total	1	05/23/08 20:29
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	05/23/08 20:29
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	05/23/08 20:29
Dibenzofuran	A	ND	0.8	10		µg, Total	1	05/23/08 20:29
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	05/23/08 20:29
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	05/23/08 20:29
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	05/23/08 20:29

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

## ANALYTICAL RESULTS

Date: Wednesday, June 04, 2008

**Client:** MWH, Inc.  
**Client Project:** March 2008 - Monthly Air / ACS  
**Client Sample ID:** #2 SBPA ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0805616-02A  
**Collection Date:** 05/15/08 13:52  
**Date Received:** 05/15/08 15:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
Hexachlorobutadiene	A	1.1	0.9	10	J	µg, Total	1	05/23/08 20:29
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	05/23/08 20:29
Hexachloroethane	A	ND	0.9	10		µg, Total	1	05/23/08 20:29
Isophorone	A	ND	1	10		µg, Total	1	05/23/08 20:29
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	05/23/08 20:29
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	05/23/08 20:29
Nitrobenzene	A	ND	1	10		µg, Total	1	05/23/08 20:29
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	05/23/08 20:29
Phenol	A	ND	0.4	10		µg, Total	1	05/23/08 20:29
Surr: 2,4,6-Tribromophenol	S	70.5	0	30-130		%REC	1	05/23/08 20:29
Surr: 2-Fluorobiphenyl	S	67.8	0	30-130		%REC	1	05/23/08 20:29
Surr: 2-Fluorophenol	S	56.6	0	30-130		%REC	1	05/23/08 20:29
Surr: Nitrobenzene-d5	S	64.2	0	30-130		%REC	1	05/23/08 20:29
Surr: Phenol-d5	S	60.6	0	30-130		%REC	1	05/23/08 20:29
Surr: Terphenyl-d14	S	83.2	0	30-130		%REC	1	05/23/08 20:29

43

PAHS BY GC/MS-SIM		Method: TO-13						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	05/23/08 20:29
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	05/23/08 20:29
Anthracene	A	ND	0.27	1.0		µg, Total	1	05/23/08 20:29
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	05/23/08 20:29
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	05/23/08 20:29
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	05/23/08 20:29
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	05/23/08 20:29
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	05/23/08 20:29
Chrysene	A	ND	0.57	1.0		µg, Total	1	05/23/08 20:29
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	05/23/08 20:29
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	05/23/08 20:29
Fluorene	A	ND	0.25	1.0		µg, Total	1	05/23/08 20:29
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	05/23/08 20:29
Naphthalene	A	1.2	0.16	1.0		µg, Total	1	05/23/08 20:29
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	05/23/08 20:29
Pyrene	A	0.86	0.44	1.0	J	µg, Total	1	05/23/08 20:29
Surr: Nitrobenzene-d5	S	64.2	0	30-130		%REC	1	05/23/08 20:29
Surr: 2-Fluorobiphenyl	S	67.8	0	30-130		%REC	1	05/23/08 20:29
Surr: Terphenyl-d14	S	83.2	0	30-130		%REC	1	05/23/08 20:29

## ANALYTICAL RESULTS

Date: Wednesday, June 04, 2008

**Client:** MWH, Inc.  
**Client Project:** March 2008 - Monthly Air / ACS  
**Client Sample ID:** #3 TOX I INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0805616-03A  
**Collection Date:** 05/15/08 14:00  
**Date Received:** 05/15/08 15:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE	Method:	TO-13MOD			Prep Date/Time:	05/22/08 19:03	Analyst:	BEM
1,2,4-Trichlorobenzene	A	ND	0.9	10	μg, Total	1	05/23/08 20:48	
1,2-Dichlorobenzene	A	3.4	0.7	10	J	μg, Total	1	05/23/08 20:48
1,3-Dichlorobenzene	A	ND	0.8	10	μg, Total	1	05/23/08 20:48	
1,4-Dichlorobenzene	A	1.2	0.9	10	J	μg, Total	1	05/23/08 20:48
2,4,5-Trichlorophenol	A	ND	1.5	10	μg, Total	1	05/23/08 20:48	
2,4,6-Trichlorophenol	A	ND	0.9	10	μg, Total	1	05/23/08 20:48	
2,4-Dichlorophenol	A	ND	0.7	10	μg, Total	1	05/23/08 20:48	
2,4-Dimethylphenol	A	ND	0.8	10	μg, Total	1	05/23/08 20:48	
2,4-Dinitrophenol	A	ND	9.4	50	μg, Total	1	05/23/08 20:48	
2,4-Dinitrotoluene	A	ND	0.8	10	μg, Total	1	05/23/08 20:48	
2,6-Dinitrotoluene	A	ND	1.1	10	μg, Total	1	05/23/08 20:48	
2-Chloronaphthalene	A	ND	0.9	10	μg, Total	1	05/23/08 20:48	
2-Chlorophenol	A	ND	0.7	10	μg, Total	1	05/23/08 20:48	
2-Methylnaphthalene	A	ND	0.9	10	μg, Total	1	05/23/08 20:48	
2-Methylphenol	A	ND	0.7	10	μg, Total	1	05/23/08 20:48	
2-Nitroaniline	A	ND	1	50	μg, Total	1	05/23/08 20:48	
2-Nitrophenol	A	ND	1	10	μg, Total	1	05/23/08 20:48	
3,3'-Dichlorobenzidine	A	ND	0.7	50	μg, Total	1	05/23/08 20:48	
3-Nitroaniline	A	ND	1.3	50	μg, Total	1	05/23/08 20:48	
3/4-Methylphenol	A	ND	0.8	10	μg, Total	1	05/23/08 20:48	
4,6-Dinitro-2-methylphenol	A	ND	1.1	50	μg, Total	1	05/23/08 20:48	
4-Bromophenyl phenyl ether	A	ND	0.9	10	μg, Total	1	05/23/08 20:48	
4-Chloro-3-methylphenol	A	ND	1.2	20	μg, Total	1	05/23/08 20:48	
4-Chloroaniline	A	ND	1	20	μg, Total	1	05/23/08 20:48	
4-Chlorophenyl phenyl ether	A	ND	0.9	10	μg, Total	1	05/23/08 20:48	
4-Nitroaniline	A	ND	1.7	50	μg, Total	1	05/23/08 20:48	
4-Nitrophenol	A	ND	4.3	50	μg, Total	1	05/23/08 20:48	
Bis(2-chloroethoxy)methane	A	ND	1	10	μg, Total	1	05/23/08 20:48	
Bis(2-chloroethyl)ether	A	ND	0.9	10	μg, Total	1	05/23/08 20:48	
Bis(2-chloroisopropyl)ether	A	ND	0.9	10	μg, Total	1	05/23/08 20:48	
Bis(2-ethylhexyl)phthalate	A	1.6	1.1	10	J	μg, Total	1	05/23/08 20:48
Butyl benzyl phthalate	A	ND	1	10	μg, Total	1	05/23/08 20:48	
Carbazole	A	ND	1.2	10	μg, Total	1	05/23/08 20:48	
Di-n-butyl phthalate	A	ND	1.2	10	μg, Total	1	05/23/08 20:48	
Di-n-octyl phthalate	A	ND	1.1	10	μg, Total	1	05/23/08 20:48	
Dibenzofuran	A	ND	0.8	10	μg, Total	1	05/23/08 20:48	
Diethyl phthalate	A	ND	1.1	10	μg, Total	1	05/23/08 20:48	
Dimethyl phthalate	A	ND	0.9	10	μg, Total	1	05/23/08 20:48	
Hexachlorobenzene	A	ND	0.9	10	μg, Total	1	05/23/08 20:48	

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664



## ANALYTICAL RESULTS

Date: Wednesday, June 04, 2008

**Client:** MWH, Inc.  
**Client Project:** March 2008 - Monthly Air / ACS  
**Client Sample ID:** #3 TOX 1 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0805616-03A  
**Collection Date:** 05/15/08 14:00  
**Date Received:** 05/15/08 15:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
Hexachlorobutadiene	A	ND	0.9	10	μg, Total	1	05/23/08 20:48	UJ
Hexachlorocyclopentadiene	A	ND	0.6	10	μg, Total	1	05/23/08 20:48	
Hexachloroethane	A	ND	0.9	10	μg, Total	1	05/23/08 20:48	
Isophorone	A	ND	1	10	μg, Total	1	05/23/08 20:48	
N-Nitrosodi-n-propylamine	A	ND	1	10	μg, Total	1	05/23/08 20:48	
N-Nitrosodiphenylamine	A	ND	0.7	10	μg, Total	1	05/23/08 20:48	
Nitrobenzene	A	ND	1	10	μg, Total	1	05/23/08 20:48	
Pentachlorophenol	A	ND	1.3	50	μg, Total	1	05/23/08 20:48	
Phenol	A	ND	0.4	10	μg, Total	1	05/23/08 20:48	
Surr: 2,4,6-Tribromophenol	S	82.3	0	30-130	%REC	1	05/23/08 20:48	
Surr: 2-Fluorobiphenyl	S	67.1	0	30-130	%REC	1	05/23/08 20:48	
Surr: 2-Fluorophenol	S	57.5	0	30-130	%REC	1	05/23/08 20:48	
Surr: Nitrobenzene-d5	S	63.6	0	30-130	%REC	1	05/23/08 20:48	
Surr: Phenol-d5	S	60.3	0	30-130	%REC	1	05/23/08 20:48	
Surr: Terphenyl-d14	S	84.7	0	30-130	%REC	1	05/23/08 20:48	

PAHS BY GC/MS-SIM		Method: TO-13						
Acenaphthene	A	ND	0.21	1.0	μg, Total	1	05/23/08 20:48	
Acenaphthylene	A	ND	0.22	1.0	μg, Total	1	05/23/08 20:48	
Anthracene	A	ND	0.27	1.0	μg, Total	1	05/23/08 20:48	
Benz[a]anthracene	A	ND	0.47	1.0	μg, Total	1	05/23/08 20:48	
Benz[a]pyrene	A	ND	0.38	1.0	μg, Total	1	05/23/08 20:48	
Benzo[b]fluoranthene	A	ND	0.44	1.0	μg, Total	1	05/23/08 20:48	
Benzo[g,h,i]perylene	A	ND	0.72	1.0	μg, Total	1	05/23/08 20:48	
Benzo[k]fluoranthene	A	ND	0.8	1.0	μg, Total	1	05/23/08 20:48	
Chrysene	A	ND	0.57	1.0	μg, Total	1	05/23/08 20:48	
Dibenz[a,h]anthracene	A	ND	0.54	1.0	μg, Total	1	05/23/08 20:48	
Fluoranthene	A	ND	0.39	1.0	μg, Total	1	05/23/08 20:48	
Fluorene	A	ND	0.25	1.0	μg, Total	1	05/23/08 20:48	
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0	μg, Total	1	05/23/08 20:48	
Naphthalene	A	1.5	0.16	1.0	μg, Total	1	05/23/08 20:48	
Phenanthrene	A	ND	0.27	1.0	μg, Total	1	05/23/08 20:48	
Pyrene	A	0.85	0.44	1.0	J μg, Total	1	05/23/08 20:48	
Surr: Nitrobenzene-d5	S	63.6	0	30-130	%REC	1	05/23/08 20:48	
Surr: 2-Fluorobiphenyl	S	67.1	0	30-130	%REC	1	05/23/08 20:48	
Surr: Terphenyl-d14	S	84.7	0	30-130	%REC	1	05/23/08 20:48	

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

## ANALYTICAL RESULTS

Date: Wednesday, June 04, 2008

**Client:** MWH, Inc.  
**Client Project:** March 2008 - Monthly Air / ACS  
**Client Sample ID:** #5 TOX I EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0805616-04A  
**Collection Date:** 05/15/08 14:05  
**Date Received:** 05/15/08 15:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
								Prep Date/Time: 05/22/08 19:03 Analyst: BEM
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	05/23/08 21:08
1,2-Dichlorobenzene	A	ND	0.7	10		µg, Total	1	05/23/08 21:08
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	05/23/08 21:08
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	05/23/08 21:08
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	05/23/08 21:08
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	05/23/08 21:08
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	05/23/08 21:08
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	05/23/08 21:08
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	05/23/08 21:08
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	05/23/08 21:08
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	05/23/08 21:08
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	05/23/08 21:08
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	05/23/08 21:08
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	05/23/08 21:08
2-Methylphenol	A	ND	0.7	10		µg, Total	1	05/23/08 21:08
2-Nitroaniline	A	ND	1	50		µg, Total	1	05/23/08 21:08
2-Nitrophenol	A	ND	1	10		µg, Total	1	05/23/08 21:08
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	05/23/08 21:08
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	05/23/08 21:08
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	05/23/08 21:08
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	05/23/08 21:08
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	05/23/08 21:08
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	05/23/08 21:08
4-Chloroaniline	A	ND	1	20		µg, Total	1	05/23/08 21:08
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	05/23/08 21:08
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	05/23/08 21:08
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	05/23/08 21:08
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	05/23/08 21:08
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	05/23/08 21:08
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	05/23/08 21:08
Bis(2-ethylhexyl)phthalate	A	1.6	1.1	10	J	µg, Total	1	05/23/08 21:08
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	05/23/08 21:08
Carbazole	A	ND	1.2	10		µg, Total	1	05/23/08 21:08
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	05/23/08 21:08
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	05/23/08 21:08
Dibenzofuran	A	ND	0.8	10		µg, Total	1	05/23/08 21:08
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	05/23/08 21:08
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	05/23/08 21:08
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	05/23/08 21:08

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

## ANALYTICAL RESULTS

Date: Wednesday, June 04, 2008

**Client:** MWH, Inc.  
**Client Project:** March 2008 - Monthly Air / ACS  
**Client Sample ID:** #5 TOX 1 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0805616-04A  
**Collection Date:** 05/15/08 14:05  
**Date Received:** 05/15/08 15:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	05/23/08 21:08
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	05/23/08 21:08
Hexachloroethane	A	ND	0.9	10		µg, Total	1	05/23/08 21:08
Isophorone	A	ND	1	10		µg, Total	1	05/23/08 21:08
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	05/23/08 21:08
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	05/23/08 21:08
Nitrobenzene	A	ND	1	10		µg, Total	1	05/23/08 21:08
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	05/23/08 21:08
Phenol	A	ND	0.4	10		µg, Total	1	05/23/08 21:08
Surr: 2,4,6-Tribromophenol	S	81.5	0	30-130		%REC	1	05/23/08 21:08
Surr: 2-Fluorobiphenyl	S	69.9	0	30-130		%REC	1	05/23/08 21:08
Surr: 2-Fluorophenol	S	60.1	0	30-130		%REC	1	05/23/08 21:08
Surr: Nitrobenzene-d5	S	65.4	0	30-130		%REC	1	05/23/08 21:08
Surr: Phenol-d5	S	63.6	0	30-130		%REC	1	05/23/08 21:08
Surr: Terphenyl-d14	S	85.1	0	30-130		%REC	1	05/23/08 21:08

PAHS BY GC/MS-SIM		Method: TO-13						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	05/23/08 21:08
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	05/23/08 21:08
Anthracene	A	ND	0.27	1.0		µg, Total	1	05/23/08 21:08
Benz[a]anthracene	A	ND	0.47	1.0		µg, Total	1	05/23/08 21:08
Benz[a]pyrene	A	ND	0.38	1.0		µg, Total	1	05/23/08 21:08
Benz[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	05/23/08 21:08
Benz[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	05/23/08 21:08
Benz[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	05/23/08 21:08
Chrysene	A	ND	0.57	1.0		µg, Total	1	05/23/08 21:08
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	05/23/08 21:08
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	05/23/08 21:08
Fluorene	A	ND	0.25	1.0		µg, Total	1	05/23/08 21:08
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	05/23/08 21:08
Naphthalene	A	ND	0.16	1.0		µg, Total	1	05/23/08 21:08
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	05/23/08 21:08
Pyrene	A	0.6	0.44	1.0	J	µg, Total	1	05/23/08 21:08
Surr: Nitrobenzene-d5	S	65.4	0	30-130		%REC	1	05/23/08 21:08
Surr: 2-Fluorobiphenyl	S	69.9	0	30-130		%REC	1	05/23/08 21:08
Surr: Terphenyl-d14	S	85.1	0	30-130		%REC	1	05/23/08 21:08

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

**June 27, 2008 Off-Gas Sample Laboratory Results**

## ANALYTICAL RESULTS

Date:

Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #1 OFFSITE ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-01A  
**Collection Date:** 06/27/08 10:50  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15			Prep Date/Time:		Analyst: MAK	
1,1,1-Trichloroethane	A	15000	240	1500	ppbv	3,000	07/03/08 04:06	
1,1,2,2-Tetrachloroethane	A	ND	8.4	30	ppbv	60	07/03/08 05:18	
1,1,2-Trichloroethane	A	ND	6.6	30	ppbv	60	07/03/08 05:18	
1,1-Dichloroethane	A	4800	30	150	ppbv	300	07/03/08 04:42	
1,1-Dichloroethene	A	110	4.2	30	ppbv	60	07/03/08 05:18	
1,2-Dichloroethane	A	710	6	30	ppbv	60	07/03/08 05:18	
1,2-Dichloropropane	A	120	5.4	30	ppbv	60	07/03/08 05:18	
2-Butanone	A	6000	630	6000	ppbv	3,000	07/03/08 04:06	
2-Hexanone	A	ND	6.6	120	ppbv	60	07/03/08 05:18	
4-Methyl-2-Pentanone	A	4300	48	150	ppbv	300	07/03/08 04:42	
Acetone	A	6000	HB	360	6000	ppbv	3,000	07/03/08 04:06
Benzene	A	8900	300	1500	ppbv	3,000	07/03/08 04:06	
Bromodichloromethane	A	ND	6	30	ppbv	60	07/03/08 05:18	
Bromoform	A	ND	5.4	30	ppbv	60	07/03/08 05:18	
Bromomethane	A	ND	4.8	30	ppbv	60	07/03/08 05:18	
Carbon disulfide	A	580	20	60	ppbv	60	07/03/08 05:18	
Carbon tetrachloride	A	ND	6.6	30	ppbv	60	07/03/08 05:18	
Chlorobenzene	A	20	6.6	30	J	ppbv	60	07/03/08 05:18
Chloroethane	A	300	6.6	30	ppbv	60	07/03/08 05:18	
Chloroform	A	1800	33	150	ppbv	300	07/03/08 04:42	
Chloromethane	A	33	4.2	120	J	ppbv	60	07/03/08 05:18
cis-1,2-Dichloroethene	A	2300	27	150	ppbv	300	07/03/08 04:42	
cis-1,3-Dichloropropene	A	ND	6	30	ppbv	60	07/03/08 05:18	
Dibromochloromethane	A	ND	4.2	30	ppbv	60	07/03/08 05:18	
Ethyl benzene	A	4700	330	1500	ppbv	3,000	07/03/08 04:06	
m,p-Xylene	A	19000	390	3000	ppbv	3,000	07/03/08 04:06	
Methylene chloride	A	17000	1300	12000	ppbv	3,000	07/03/08 04:06	
o-Xylene	A	7400	390	1500	ppbv	3,000	07/03/08 04:06	
Styrene	A	ND	7.8	30	ppbv	60	07/03/08 05:18	
Tetrachloroethene	A	8900	330	1500	ppbv	3,000	07/03/08 04:06	
Toluene	A	43000	330	1500	ppbv	3,000	07/03/08 04:06	
trans-1,2-Dichloroethene	A	45	4.8	30	ppbv	60	07/03/08 05:18	
trans-1,3-Dichloropropene	A	ND	6	30	ppbv	60	07/03/08 05:18	
Trichloroethene	A	8700	330	1500	ppbv	3,000	07/03/08 04:06	
Vinyl chloride	A	1000	4.8	30	ppbv	60	07/03/08 05:18	
Surr: 4-Bromofluorobenzene	S	106	0	77.7-127	%REC	60	07/03/08 05:18	

7/21/08

## ANALYTICAL RESULTS

Date:

Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #1 OFFSITE ISVE  
**Sample Description:**  
**Sample Matrix:** Air      **Work Order / ID:** ME0806A91-01B  
**Collection Date:** 06/27/08 10:50  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
					Prep Date/Time: 07/02/08 13:50		Analyst: BEM	
1,2,4-Trichlorobenzene	A	ND <i>NS</i>	0.9	10		µg, Total	1	07/03/08 20:42
1,2-Dichlorobenzene	A	2.6	J 0.7	10	J	µg, Total	1	07/03/08 20:42
1,3-Dichlorobenzene	A	ND <i>NS</i>	0.8	10		µg, Total	1	07/03/08 20:42
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	07/03/08 20:42
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	07/03/08 20:42
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	07/03/08 20:42
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	07/03/08 20:42
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	07/03/08 20:42
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	07/03/08 20:42
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	07/03/08 20:42
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	07/03/08 20:42
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	07/03/08 20:42
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	07/03/08 20:42
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	07/03/08 20:42
2-Methylphenol	A	ND	0.7	10		µg, Total	1	07/03/08 20:42
2-Nitroaniline	A	ND	1	50		µg, Total	1	07/03/08 20:42
2-Nitrophenol	A	ND	1	10		µg, Total	1	07/03/08 20:42
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	07/03/08 20:42
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	07/03/08 20:42
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	07/03/08 20:42
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	07/03/08 20:42
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	07/03/08 20:42
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	07/03/08 20:42
4-Chloroaniline	A	ND	1	20		µg, Total	1	07/03/08 20:42
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	07/03/08 20:42
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	07/03/08 20:42
4-Nitrophenol	A	ND <i>R</i>	4.3	50		µg, Total	1	07/03/08 20:42
Bis(2-chloroethoxy)methane	A	ND <i>NS</i>	1	10		µg, Total	1	07/03/08 20:42
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	07/03/08 20:42
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	07/03/08 20:42
Bis(2-ethylhexyl)phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 20:42
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	07/03/08 20:42
Carbazole	A	ND	1.2	10		µg, Total	1	07/03/08 20:42
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	07/03/08 20:42
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 20:42
Dibenzofuran	A	ND	0.8	10		µg, Total	1	07/03/08 20:42
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 20:42
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	07/03/08 20:42
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	07/03/08 20:42

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

9/8/2008

## ANALYTICAL RESULTS

Date: Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #1 OFFSITE ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-01B  
**Collection Date:** 06/27/08 10:50  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
		Prep Date/Time: 07/02/08 13:50 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	07/03/08 20:42
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	07/03/08 20:42
Hexachloroethane	A	ND	0.9	10		µg, Total	1	07/03/08 20:42
Isophorone	A	3.8	1	10	J	µg, Total	1	07/03/08 20:42
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	07/03/08 20:42
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	07/03/08 20:42
Nitrobenzene	A	ND	1	10		µg, Total	1	07/03/08 20:42
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	07/03/08 20:42
Phenol	A	ND	0.4	10		µg, Total	1	07/03/08 20:42
Surr: 2,4,6-Tribromophenol	S	24.7	0	39.4-112	S	%REC	1	07/03/08 20:42
Surr: 2-Fluorobiphenyl	S	27.4	0	21.6-123		%REC	1	07/03/08 20:42
Surr: 2-Fluorophenol	S	26.6	0	27.7-78	S	%REC	1	07/03/08 20:42
Surr: Nitrobenzene-d5	S	27.2	0	36.9-89.6	S	%REC	1	07/03/08 20:42
Surr: Phenol-d5	S	25.2	0	46.1-73.5	S	%REC	1	07/03/08 20:42
Surr: Terphenyl-d14	S	29.8	0	55.8-111	S	%REC	1	07/03/08 20:42

PAHS BY GC/MS-SIM		Method: TO-13						
		Prep Date/Time: 07/02/08 13:50 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	07/03/08 20:42
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	07/03/08 20:42
Anthracene	A	ND	0.27	1.0		µg, Total	1	07/03/08 20:42
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	07/03/08 20:42
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	07/03/08 20:42
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	07/03/08 20:42
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	07/03/08 20:42
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	07/03/08 20:42
Chrysene	A	ND	0.57	1.0		µg, Total	1	07/03/08 20:42
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	07/03/08 20:42
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	07/03/08 20:42
Fluorene	A	ND	0.25	1.0		µg, Total	1	07/03/08 20:42
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	07/03/08 20:42
Naphthalene	A	4.5	0.16	1.0		µg, Total	1	07/03/08 20:42
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	07/03/08 20:42
Pyrene	A	ND	0.44	1.0		µg, Total	1	07/03/08 20:42
Surr: Nitrobenzene-d5	S	27.2	0	36.9-89.6	S	%REC	1	07/03/08 20:42
Surr: 2-Fluorobiphenyl	S	27.4	0	21.6-123		%REC	1	07/03/08 20:42
Surr: Terphenyl-d14	S	29.8	0	55.8-111	S	%REC	1	07/03/08 20:42

18/7/08

## ANALYTICAL RESULTS

Date: Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #2 SBPA ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-02A  
**Collection Date:** 06/27/08 10:52  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15			Prep Date/Time:		Analyst: MAK
1,1,1-Trichloroethane	A	11000	48	300	ppbv	600	07/01/08 18:18
1,1,2,2-Tetrachloroethane	A	20	8.4	30	J	ppbv	60
1,1,2-Trichloroethane	A	ND	6.6	30	ppbv	60	07/01/08 18:55
1,1-Dichloroethane	A	2500	60	300	ppbv	600	07/01/08 18:18
1,1-Dichloroethene	A	120	4.2	30	ppbv	60	07/01/08 18:55
1,2-Dichloroethane	A	190	6	30	ppbv	60	07/01/08 18:55
1,2-Dichloropropane	A	140	5.4	30	ppbv	60	07/01/08 18:55
2-Butanone	A	ND	13	120	ppbv	60	07/01/08 18:55
2-Hexanone	A	ND	6.6	120	ppbv	60	07/01/08 18:55
4-Methyl-2-Pentanone	A	310	9.6	30	ppbv	60	07/01/08 18:55
Acetone	A	370	UB	120	ppbv	60	07/01/08 18:55
Benzene	A	1800	60	300	ppbv	600	07/01/08 18:18
Bromodichloromethane	A	ND	6	30	ppbv	60	07/01/08 18:55
Bromoform	A	ND	5.4	30	ppbv	60	07/01/08 18:55
Bromomethane	A	ND	4.8	30	ppbv	60	07/01/08 18:55
Carbon disulfide	A	740	20	60	ppbv	60	07/01/08 18:55
Carbon tetrachloride	A	ND	6.6	30	ppbv	60	07/01/08 18:55
Chlorobenzene	A	21	6.6	30	J	ppbv	60
Chloroethane	A	400	6.6	30	ppbv	60	07/01/08 18:55
Chloroform	A	2400	66	300	ppbv	600	07/01/08 18:18
Chloromethane	A	13	4.2	120	J	ppbv	60
cis-1,2-Dichloroethene	A	22000	250	1400	ppbv	3,000	07/01/08 17:43
cis-1,3-Dichloropropene	A	ND	6	30	ppbv	60	07/01/08 18:55
Dibromochloromethane	A	ND	4.2	30	ppbv	60	07/01/08 18:55
Ethyl benzene	A	2900	66	300	ppbv	600	07/01/08 18:18
m,p-Xylene	A	12000	78	600	ppbv	600	07/01/08 18:18
Methylene chloride	A	4300	260	2400	ppbv	600	07/01/08 18:18
o-Xylene	A	6000	78	300	ppbv	600	07/01/08 18:18
Styrene	A	ND	7.8	30	ppbv	60	07/01/08 18:55
Tetrachloroethene	A	20000	300	1400	ppbv	3,000	07/01/08 17:43
Toluene	A	19000	300	1400	ppbv	3,000	07/01/08 17:43
trans-1,2-Dichloroethene	A	120	4.8	30	ppbv	60	07/01/08 18:55
trans-1,3-Dichloropropene	A	ND	6	30	ppbv	60	07/01/08 18:55
Trichloroethene	A	8100	66	300	ppbv	600	07/01/08 18:18
Vinyl chloride	A	3300	48	300	ppbv	600	07/01/08 18:18
Surr: 4-Bromofluorobenzene	S	96.7	0	77.7-127	%REC	60	07/01/08 18:55

JULY 10 2008

## ANALYTICAL RESULTS

Date:

Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #2 SBPA ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-02B  
**Collection Date:** 06/27/08 10:52  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE	Method:	Prep Date/Time: 07/02/08 13:50 Analyst: BEM						
1,2,4-Trichlorobenzene	A	ND	WJ 0.9	10		µg, Total	1	07/03/08 21:07
1,2-Dichlorobenzene	A	2.3	J 0.7	10	J	µg, Total	1	07/03/08 21:07
1,3-Dichlorobenzene	A	ND	WJ 0.8	10		µg, Total	1	07/03/08 21:07
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	07/03/08 21:07
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	07/03/08 21:07
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	07/03/08 21:07
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	07/03/08 21:07
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	07/03/08 21:07
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	07/03/08 21:07
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	07/03/08 21:07
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	07/03/08 21:07
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	07/03/08 21:07
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	07/03/08 21:07
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	07/03/08 21:07
2-Methylphenol	A	ND	0.7	10		µg, Total	1	07/03/08 21:07
2-Nitroaniline	A	ND	1	50		µg, Total	1	07/03/08 21:07
2-Nitrophenol	A	ND	1	10		µg, Total	1	07/03/08 21:07
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	07/03/08 21:07
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	07/03/08 21:07
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	07/03/08 21:07
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	07/03/08 21:07
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	07/03/08 21:07
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	07/03/08 21:07
4-Chloroaniline	A	ND	1	20		µg, Total	1	07/03/08 21:07
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	07/03/08 21:07
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	07/03/08 21:07
4-Nitrophenol	A	ND	R 4.3	50		µg, Total	1	07/03/08 21:07
Bis(2-chloroethoxy)methane	A	ND	WJ 1	10		µg, Total	1	07/03/08 21:07
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	07/03/08 21:07
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	07/03/08 21:07
Bis(2-ethylhexyl)phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 21:07
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	07/03/08 21:07
Carbazole	A	ND	1.2	10		µg, Total	1	07/03/08 21:07
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	07/03/08 21:07
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 21:07
Dibenzofuran	A	ND	0.8	10		µg, Total	1	07/03/08 21:07
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 21:07
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	07/03/08 21:07
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	07/03/08 21:07

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

7/10/08

## ANALYTICAL RESULTS

Date: Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #2 SBPA ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-02B  
**Collection Date:** 06/27/08 10:52  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD Prep Date/Time: 07/02/08 13:50 Analyst: BEM						
Hexachlorobutadiene	A	ND US 0.9		10		µg, Total	1	07/03/08 21:07
Hexachlorocyclopentadiene	A	ND 0.6		10		µg, Total	1	07/03/08 21:07
Hexachloroethane	A	ND 0.9		10		µg, Total	1	07/03/08 21:07
Isophorone	A	ND 1		10		µg, Total	1	07/03/08 21:07
N-Nitrosodi-n-propylamine	A	ND 1		10		µg, Total	1	07/03/08 21:07
N-Nitrosodiphenylamine	A	ND 0.7		10		µg, Total	1	07/03/08 21:07
Nitrobenzene	A	ND 1		10		µg, Total	1	07/03/08 21:07
Pentachlorophenol	A	ND 1.3		50		µg, Total	1	07/03/08 21:07
Phenol	A	ND 0.4		10		µg, Total	1	07/03/08 21:07
Surr: 2,4,6-Tribromophenol	S	16.7	0	39.4-112	S	%REC	1	07/03/08 21:07
Surr: 2-Fluorobiphenyl	S	21.3	0	21.6-123	S	%REC	1	07/03/08 21:07
Surr: 2-Fluorophenol	S	21.2	0	27.7-78	S	%REC	1	07/03/08 21:07
Surr: Nitrobenzene-d5	S	20.4	0	36.9-89.6	S	%REC	1	07/03/08 21:07
Surr: Phenol-d5	S	20.1	0	46.1-73.5	S	%REC	1	07/03/08 21:07
Surr: Terphenyl-d14	S	22.6	0	55.8-111	S	%REC	1	07/03/08 21:07

PAHS BY GC/MS-SIM		Method: TO-13 Prep Date/Time: 07/02/08 13:50 Analyst: BEM						
Acenaphthene	A	ND US 0.21		1.0		µg, Total	1	07/03/08 21:07
Acenaphthylene	A	ND 0.22		1.0		µg, Total	1	07/03/08 21:07
Anthracene	A	ND 0.27		1.0		µg, Total	1	07/03/08 21:07
Benzo[a]anthracene	A	ND 0.47		1.0		µg, Total	1	07/03/08 21:07
Benzo[a]pyrene	A	ND 0.38		1.0		µg, Total	1	07/03/08 21:07
Benzo[b]fluoranthene	A	ND 0.44		1.0		µg, Total	1	07/03/08 21:07
Benzo[g,h,i]perylene	A	ND 0.72		1.0		µg, Total	1	07/03/08 21:07
Benzo[k]fluoranthene	A	ND 0.8		1.0		µg, Total	1	07/03/08 21:07
Chrysene	A	ND 0.57		1.0		µg, Total	1	07/03/08 21:07
Dibenz[a,h]anthracene	A	ND 0.54		1.0		µg, Total	1	07/03/08 21:07
Fluoranthene	A	ND 0.39		1.0		µg, Total	1	07/03/08 21:07
Fluorene	A	ND 0.25		1.0		µg, Total	1	07/03/08 21:07
Indeno[1,2,3cd]pyrene	A	ND 0.56		1.0		µg, Total	1	07/03/08 21:07
Naphthalene	A	ND 0.16		1.0		µg, Total	1	07/03/08 21:07
Phenanthrene	A	ND 0.27		1.0		µg, Total	1	07/03/08 21:07
Pyrene	A	ND 0.44		1.0		µg, Total	1	07/03/08 21:07
Surr: Nitrobenzene-d5	S	20.4	0	36.9-89.6	S	%REC	1	07/03/08 21:07
Surr: 2-Fluorobiphenyl	S	21.3	0	21.6-123	S	%REC	1	07/03/08 21:07
Surr: Terphenyl-d14	S	22.6	0	55.8-111	S	%REC	1	07/03/08 21:07

J8/21/08

**ANALYTICAL RESULTS****Date:***Friday, July 18, 2008*

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #3 TOX 1 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-03A  
**Collection Date:** 06/27/08 11:15  
**Date Received:** 06/27/08 14:15

<b>Analyses</b>	<b>ST</b>	<b>Result</b>	<b>MDL</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Analyzed</b>
-----------------	-----------	---------------	------------	-----------	-------------	--------------	-----------	-----------------

TOXIC ORGANICS IN AIR BY GC/MS	Method: TO-15		Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	14000	220	1400	ppbv	3,000	07/01/08 19:30	
1,1,2,2-Tetrachloroethane	A	ND	8.4	30	ppbv	60	07/02/08 17:22	
1,1,2-Trichloroethane	A	25	6.6	30	J	ppbv	60	07/02/08 17:22
1,1-Dichloroethane	A	2400	30	150	ppbv	300	07/01/08 21:14	
1,1-Dichloroethene	A	130	4.2	30	ppbv	60	07/02/08 17:22	
1,2-Dichloroethane	A	150	6	30	ppbv	60	07/02/08 17:22	
1,2-Dichloropropane	A	130	5.4	30	ppbv	60	07/02/08 17:22	
2-Butanone	A	ND	13	120	ppbv	60	07/02/08 17:22	
2-Hexanone	A	ND	6.6	120	ppbv	60	07/02/08 17:22	
4-Methyl-2-Pentanone	A	380	9.6	30	ppbv	60	07/02/08 17:22	
Acetone	A	380	UB	120	ppbv	60	07/02/08 17:22	
Benzene	A	1500	30	150	ppbv	300	07/01/08 21:14	
Bromodichloromethane	A	ND	6	30	ppbv	60	07/02/08 17:22	
Bromoform	A	ND	5.4	30	ppbv	60	07/02/08 17:22	
Bromomethane	A	ND	4.8	30	ppbv	60	07/02/08 17:22	
Carbon disulfide	A	270	20	60	ppbv	60	07/02/08 17:22	
Carbon tetrachloride	A	ND	6.6	30	ppbv	60	07/02/08 17:22	
Chlorobenzene	A	22	6.6	30	J	ppbv	60	07/02/08 17:22
Chloroethane	A	410	6.6	30	ppbv	60	07/02/08 17:22	
Chloroform	A	2100	33	150	ppbv	300	07/01/08 21:14	
Chloromethane	A	17	4.2	120	J	ppbv	60	07/02/08 17:22
cis-1,2-Dichloroethene	A	23000	250	1400	ppbv	3,000	07/01/08 19:30	
cis-1,3-Dichloropropene	A	ND	6	30	ppbv	60	07/02/08 17:22	
Dibromochloromethane	A	ND	4.2	30	ppbv	60	07/02/08 17:22	
Ethyl benzene	A	2700	33	150	ppbv	300	07/01/08 21:14	
m,p-Xylene	A	10000	39	300	ppbv	300	07/01/08 21:14	
Methylene chloride	A	3900	130	1200	ppbv	300	07/01/08 21:14	
o-Xylene	A	5300	39	150	ppbv	300	07/01/08 21:14	
Styrene	A	ND	7.8	30	ppbv	60	07/02/08 17:22	
Tetrachloroethene	A	21000	300	1400	ppbv	3,000	07/01/08 19:30	
Toluene	A	19000	300	1400	ppbv	3,000	07/01/08 19:30	
trans-1,2-Dichloroethene	A	130	4.8	30	ppbv	60	07/02/08 17:22	
trans-1,3-Dichloropropene	A	ND	6	30	ppbv	60	07/02/08 17:22	
Trichloroethene	A	10000	300	1400	ppbv	3,000	07/01/08 19:30	
Vinyl chloride	A	2900	24	150	ppbv	300	07/01/08 21:14	
Surr: 4-Bromofluorobenzene	S	97.1	0	77.7-127	%REC	60	07/02/08 17:22	

f8/21/08

## ANALYTICAL RESULTS

Date:

Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #3 TOX 1 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-03B  
**Collection Date:** 06/27/08 11:15  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD Prep Date/Time: 07/02/08 13:50 Analyst: BEM						
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	07/03/08 21:33
1,2-Dichlorobenzene	A	5.6	0.7	10	J	µg, Total	1	07/03/08 21:33
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	07/03/08 21:33
1,4-Dichlorobenzene	A	1.4	0.9	10	J	µg, Total	1	07/03/08 21:33
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	07/03/08 21:33
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	07/03/08 21:33
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	07/03/08 21:33
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	07/03/08 21:33
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	07/03/08 21:33
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	07/03/08 21:33
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	07/03/08 21:33
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	07/03/08 21:33
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	07/03/08 21:33
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	07/03/08 21:33
2-Methylphenol	A	ND	0.7	10		µg, Total	1	07/03/08 21:33
2-Nitroaniline	A	ND	1	50		µg, Total	1	07/03/08 21:33
2-Nitrophenol	A	ND	1	10		µg, Total	1	07/03/08 21:33
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	07/03/08 21:33
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	07/03/08 21:33
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	07/03/08 21:33
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	07/03/08 21:33
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	07/03/08 21:33
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	07/03/08 21:33
4-Chloroaniline	A	ND	1	20		µg, Total	1	07/03/08 21:33
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	07/03/08 21:33
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	07/03/08 21:33
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	07/03/08 21:33
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	07/03/08 21:33
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	07/03/08 21:33
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	07/03/08 21:33
Bis(2-ethylhexyl)phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 21:33
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	07/03/08 21:33
Carbazole	A	ND	1.2	10		µg, Total	1	07/03/08 21:33
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	07/03/08 21:33
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 21:33
Dibenzofuran	A	ND	0.8	10		µg, Total	1	07/03/08 21:33
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 21:33
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	07/03/08 21:33
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	07/03/08 21:33

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

9/8/108

## ANALYTICAL RESULTS

Date:

Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #3 TOX 1 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-03B  
**Collection Date:** 06/27/08 11:15  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE	Method: TO-13MOD		Prep Date/Time: 07/02/08 13:50 Analyst: BEM					
Hexachlorobutadiene	A	1.6	0.9	10	J	µg, Total	1	07/03/08 21:33
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	07/03/08 21:33
Hexachloroethane	A	ND	0.9	10		µg, Total	1	07/03/08 21:33
Isophorone	A	ND	1	10		µg, Total	1	07/03/08 21:33
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	07/03/08 21:33
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	07/03/08 21:33
Nitrobenzene	A	ND	1	10		µg, Total	1	07/03/08 21:33
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	07/03/08 21:33
Phenol	A	ND	0.4	10		µg, Total	1	07/03/08 21:33
Surr: 2,4,6-Tribromophenol	S	47.3	0	39.4-112		%REC	1	07/03/08 21:33
Surr: 2-Fluorobiphenyl	S	50.6	0	21.6-123		%REC	1	07/03/08 21:33
Surr: 2-Fluorophenol	S	44.9	0	27.7-78		%REC	1	07/03/08 21:33
Surr: Nitrobenzene-d5	S	46.8	0	36.9-89.6		%REC	1	07/03/08 21:33
Surr: Phenol-d5	S	45.4	0	46.1-73.5	S	%REC	1	07/03/08 21:33
Surr: Terphenyl-d14	S	55.2	0	55.8-111	S	%REC	1	07/03/08 21:33

PAHS BY GC/MS-SIM	Method: TO-13		Prep Date/Time: 07/02/08 13:50 Analyst: BEM					
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	07/03/08 21:33
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	07/03/08 21:33
Anthracene	A	ND	0.27	1.0		µg, Total	1	07/03/08 21:33
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	07/03/08 21:33
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	07/03/08 21:33
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	07/03/08 21:33
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	07/03/08 21:33
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	07/03/08 21:33
Chrysene	A	ND	0.57	1.0		µg, Total	1	07/03/08 21:33
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	07/03/08 21:33
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	07/03/08 21:33
Fluorene	A	ND	0.25	1.0		µg, Total	1	07/03/08 21:33
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	07/03/08 21:33
Naphthalene	A	1.8	0.16	1.0		µg, Total	1	07/03/08 21:33
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	07/03/08 21:33
Pyrene	A	ND	0.44	1.0		µg, Total	1	07/03/08 21:33
Surr: Nitrobenzene-d5	S	46.8	0	36.9-89.6		%REC	1	07/03/08 21:33
Surr: 2-Fluorobiphenyl	S	50.6	0	21.6-123		%REC	1	07/03/08 21:33
Surr: Terphenyl-d14	S	55.2	0	55.8-111	S	%REC	1	07/03/08 21:33

18/07/08

## ANALYTICAL RESULTS

Date: Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #4 TOX 1 INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-04A  
**Collection Date:** 06/27/08 11:46  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

TOXIC ORGANICS IN AIR BY GC/MS		Method:	TO-15	Prep Date/Time:			Analyst: MAK	
1,1,1-Trichloroethane	A	16000	220	1400	ppbv	1,000	07/01/08 20:05	
1,1,2,2-Tetrachloroethane	A	17	8.4	30	J	60	07/01/08 23:04	
1,1,2-Trichloroethane	A	ND	6.6	30	ppbv	60	07/01/08 23:04	
1,1-Dichloroethane	A	2500	30	150	ppbv	300	07/01/08 21:48	
1,1-Dichloroethene	A	130	4.2	30	ppbv	60	07/01/08 23:04	
1,2-Dichloroethane	A	200	6	30	ppbv	60	07/01/08 23:04	
1,2-Dichloropropane	A	140	5.4	30	ppbv	60	07/01/08 23:04	
2-Butanone	A	ND	13	120	ppbv	60	07/01/08 23:04	
2-Hexanone	A	ND	6.6	120	ppbv	60	07/01/08 23:04	
4-Methyl-2-Pentanone	A	330	9.6	30	ppbv	60	07/01/08 23:04	
Acetone	A	340	UB	120	ppbv	60	07/01/08 23:04	
Benzene	A	1700	30	150	ppbv	300	07/01/08 21:48	
Bromodichloromethane	A	ND	6	30	ppbv	60	07/01/08 23:04	
Bromoform	A	ND	5.4	30	ppbv	60	07/01/08 23:04	
Bromomethane	A	ND	4.8	30	ppbv	60	07/01/08 23:04	
Carbon disulfide	A	300	20	60	ppbv	60	07/01/08 23:04	
Carbon tetrachloride	A	ND	6.6	30	ppbv	60	07/01/08 23:04	
Chlorobenzene	A	22	6.6	30	J	60	07/01/08 23:04	
Chloroethane	A	430	6.6	30	ppbv	60	07/01/08 23:04	
Chloroform	A	2200	33	150	ppbv	300	07/01/08 21:48	
Chloromethane	A	17	4.2	120	J	60	07/01/08 23:04	
cis-1,2-Dichloroethene	A	22000	250	1400	ppbv	1,000	07/01/08 20:05	
cis-1,3-Dichloropropene	A	ND	6	30	ppbv	60	07/01/08 23:04	
Dibromochloromethane	A	ND	4.2	30	ppbv	60	07/01/08 23:04	
Ethyl benzene	A	2600	33	150	ppbv	300	07/01/08 21:48	
m,p-Xylene	A	9700	39	300	ppbv	300	07/01/08 21:48	
Methylene chloride	A	5200	130	1200	ppbv	300	07/01/08 21:48	
o-Xylene	A	5100	39	150	ppbv	300	07/01/08 21:48	
Styrene	A	170	7.8	30	ppbv	60	07/01/08 23:04	
Tetrachloroethene	A	22000	300	1400	ppbv	1,000	07/01/08 20:05	
Toluene	A	18000	300	1400	ppbv	1,000	07/01/08 20:05	
trans-1,2-Dichloroethene	A	130	4.8	30	ppbv	60	07/01/08 23:04	
trans-1,3-Dichloropropene	A	ND	6	30	ppbv	60	07/01/08 23:04	
Trichloroethene	A	11000	300	1400	ppbv	1,000	07/01/08 20:05	
Vinyl chloride	A	3000	24	150	ppbv	300	07/01/08 21:48	
Surr: 4-Bromofluorobenzene	S	92.4	0	77.7-127	%REC	60	07/01/08 23:04	

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

7/21/08

## ANALYTICAL RESULTS

Date:

Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #4 TOX 1 INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-04B  
**Collection Date:** 06/27/08 11:46  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD		Prep Date/Time: 07/02/08 13:50			Analyst: BEM	
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	07/03/08 21:58
1,2-Dichlorobenzene	A	3.3	0.7	10	J	µg, Total	1	07/03/08 21:58
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	07/03/08 21:58
1,4-Dichlorobenzene	A	1	0.9	10	J	µg, Total	1	07/03/08 21:58
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	07/03/08 21:58
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	07/03/08 21:58
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	07/03/08 21:58
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	07/03/08 21:58
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	07/03/08 21:58
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	07/03/08 21:58
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	07/03/08 21:58
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	07/03/08 21:58
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	07/03/08 21:58
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	07/03/08 21:58
2-Methylphenol	A	ND	0.7	10		µg, Total	1	07/03/08 21:58
2-Nitroaniline	A	ND	1	50		µg, Total	1	07/03/08 21:58
2-Nitrophenol	A	ND	1	10		µg, Total	1	07/03/08 21:58
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	07/03/08 21:58
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	07/03/08 21:58
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	07/03/08 21:58
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	07/03/08 21:58
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	07/03/08 21:58
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	07/03/08 21:58
4-Chloroaniline	A	ND	1	20		µg, Total	1	07/03/08 21:58
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	07/03/08 21:58
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	07/03/08 21:58
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	07/03/08 21:58
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	07/03/08 21:58
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	07/03/08 21:58
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	07/03/08 21:58
Bis(2-ethylhexyl)phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 21:58
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	07/03/08 21:58
Carbazole	A	ND	1.2	10		µg, Total	1	07/03/08 21:58
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	07/03/08 21:58
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 21:58
Dibenzofuran	A	ND	0.8	10		µg, Total	1	07/03/08 21:58
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 21:58
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	07/03/08 21:58
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	07/03/08 21:58

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

**ANALYTICAL RESULTS****Date:***Friday, July 18, 2008*

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #4 TOX I INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A9I-04B  
**Collection Date:** 06/27/08 11:46  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
		Prep Date/Time: 07/02/08 13:50 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	07/03/08 21:58
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	07/03/08 21:58
Hexachloroethane	A	ND	0.9	10		µg, Total	1	07/03/08 21:58
Isophorone	A	ND	1	10		µg, Total	1	07/03/08 21:58
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	07/03/08 21:58
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	07/03/08 21:58
Nitrobenzene	A	ND	1	10		µg, Total	1	07/03/08 21:58
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	07/03/08 21:58
Phenol	A	ND	0.4	10		µg, Total	1	07/03/08 21:58
<i>Surr: 2,4,6-Tribromophenol</i>	S	43.6	0	39.4-112		%REC	1	07/03/08 21:58
<i>Surr: 2-Fluorobiphenyl</i>	S	43.0	0	21.6-123		%REC	1	07/03/08 21:58
<i>Surr: 2-Fluorophenol</i>	S	36.3	0	27.7-78		%REC	1	07/03/08 21:58
<i>Surr: Nitrobenzene-d5</i>	S	37.4	0	36.9-89.6		%REC	1	07/03/08 21:58
<i>Surr: Phenol-d5</i>	S	36.8	0	46.1-73.5	S	%REC	1	07/03/08 21:58
<i>Surr: Terphenyl-d14</i>	S	51.4	0	55.8-111	S	%REC	1	07/03/08 21:58

PAHS BY GC/MS-SIM		Method: TO-13						
		Prep Date/Time: 07/02/08 13:50 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	07/03/08 21:58
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	07/03/08 21:58
Anthracene	A	ND	0.27	1.0		µg, Total	1	07/03/08 21:58
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	07/03/08 21:58
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	07/03/08 21:58
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	07/03/08 21:58
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	07/03/08 21:58
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	07/03/08 21:58
Chrysene	A	ND	0.57	1.0		µg, Total	1	07/03/08 21:58
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	07/03/08 21:58
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	07/03/08 21:58
Fluorene	A	ND	0.25	1.0		µg, Total	1	07/03/08 21:58
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	07/03/08 21:58
Naphthalene	A	1.0	0.16	1.0		µg, Total	1	07/03/08 21:58
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	07/03/08 21:58
Pyrene	A	ND	0.44	1.0		µg, Total	1	07/03/08 21:58
<i>Surr: Nitrobenzene-d5</i>	S	37.4	0	36.9-89.6		%REC	1	07/03/08 21:58
<i>Surr: 2-Fluorobiphenyl</i>	S	43.0	0	21.6-123		%REC	1	07/03/08 21:58
<i>Surr: Terphenyl-d14</i>	S	51.4	0	55.8-111	S	%REC	1	07/03/08 21:58

9/8/10 e8

**ANALYTICAL RESULTS**

Date: Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #5 TOX 1 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-05A  
**Collection Date:** 06/27/08 11:20  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

TOXIC ORGANICS IN AIR BY GC/MS	Method: TO-15		Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	30	0.4	2.5	ppbv	5	07/03/08 02:54	
1,1,2,2-Tetrachloroethane	A	ND	0.14	0.50	ppbv	1	07/03/08 03:31	
1,1,2-Trichloroethane	A	0.25	0.11	0.50	J	ppbv	1	07/03/08 03:31
1,1-Dichloroethane	A	8.2	0.1	0.50	ppbv	1	07/03/08 03:31	
1,1-Dichloroethene	A	32	0.35	2.5	ppbv	5	07/03/08 02:54	
1,2-Dichloroethane	A	1.2	0.1	0.50	ppbv	1	07/03/08 03:31	
1,2-Dichloropropane	A	0.32	0.09	0.50	J	ppbv	1	07/03/08 03:31
2-Butanone	A	12	0.21	2.0	ppbv	1	07/03/08 03:31	
2-Hexanone	A	1.3	0.11	2.0	J	ppbv	1	07/03/08 03:31
4-Methyl-2-Pentanone	A	6.9	0.16	0.50	ppbv	1	07/03/08 03:31	
Acetone	A	28	HB	0.59	9.9	ppbv	5	07/03/08 02:54
Benzene	A	27	0.5	2.5	ppbv	5	07/03/08 02:54	
Bromodichloromethane	A	ND	0.1	0.50	ppbv	1	07/03/08 03:31	
Bromoform	A	ND	0.09	0.50	ppbv	1	07/03/08 03:31	
Bromomethane	A	ND	0.08	0.50	ppbv	1	07/03/08 03:31	
Carbon disulfide	A	0.45	0.33	1.0	J	ppbv	1	07/03/08 03:31
Carbon tetrachloride	A	ND	0.11	0.50	ppbv	1	07/03/08 03:31	
Chlorobenzene	A	0.35	0.11	0.50	J	ppbv	1	07/03/08 03:31
Chloroethane	A	1.4	0.11	0.50	ppbv	1	07/03/08 03:31	
Chloroform	A	6.3	0.11	0.50	ppbv	1	07/03/08 03:31	
Chloromethane	A	1.7	0.07	2.0	J	ppbv	1	07/03/08 03:31
cis-1,2-Dichloroethene	A	45	0.45	2.5	ppbv	5	07/03/08 02:54	
cis-1,3-Dichloropropene	A	ND	0.1	0.50	ppbv	1	07/03/08 03:31	
Dibromochloromethane	A	ND	0.07	0.50	ppbv	1	07/03/08 03:31	
Ethyl benzene	A	12	0.11	0.50	ppbv	1	07/03/08 03:31	
m,p-Xylene	A	39	0.13	1.0	ppbv	1	07/03/08 03:31	
Methylene chloride	A	34	2.1	20	ppbv	5	07/03/08 02:54	
o-Xylene	A	17	0.13	0.50	ppbv	1	07/03/08 03:31	
Styrene	A	6.0	0.13	0.50	ppbv	1	07/03/08 03:31	
Tetrachloroethene	A	67	0.54	2.5	ppbv	5	07/03/08 02:54	
Toluene	A	89	0.54	2.5	ppbv	5	07/03/08 02:54	
trans-1,2-Dichloroethene	A	12	0.08	0.50	ppbv	1	07/03/08 03:31	
trans-1,3-Dichloropropene	A	ND	0.1	0.50	ppbv	1	07/03/08 03:31	
Trichloroethene	A	38	0.54	2.5	ppbv	5	07/03/08 02:54	
Vinyl chloride	A	14	0.08	0.50	ppbv	1	07/03/08 03:31	
Surr: 4-Bromofluorobenzene	S	97.9	0	77.7-127	%REC	1	07/03/08 03:31	

**ANALYTICAL RESULTS**

Date: Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #5 TOX 1 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-05B  
**Collection Date:** 06/27/08 11:20  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD		Prep Date/Time: 07/02/08 13:50 Analyst: BEM						
1,2,4-Trichlorobenzene	A	ND <i>UJ</i>	0.9	10		µg, Total	1	07/03/08 22:23
1,2-Dichlorobenzene	A	ND	0.7	10		µg, Total	1	07/03/08 22:23
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	07/03/08 22:23
1,4-Dichlorobenzene	A	ND <i>UJ</i>	0.9	10		µg, Total	1	07/03/08 22:23
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	07/03/08 22:23
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	07/03/08 22:23
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	07/03/08 22:23
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	07/03/08 22:23
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	07/03/08 22:23
2,4-Dinitrotoluene	A	ND <i>UJ</i>	0.8	10		µg, Total	1	07/03/08 22:23
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	07/03/08 22:23
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	07/03/08 22:23
2-Chlorophenol	A	ND <i>UJ</i>	0.7	10		µg, Total	1	07/03/08 22:23
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	07/03/08 22:23
2-Methylphenol	A	ND	0.7	10		µg, Total	1	07/03/08 22:23
2-Nitroaniline	A	ND	1	50		µg, Total	1	07/03/08 22:23
2-Nitrophenol	A	ND	1	10		µg, Total	1	07/03/08 22:23
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	07/03/08 22:23
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	07/03/08 22:23
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	07/03/08 22:23
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	07/03/08 22:23
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	07/03/08 22:23
4-Chloro-3-methylphenol	A	ND <i>UJ</i>	1.2	20		µg, Total	1	07/03/08 22:23
4-Chloroaniline	A	ND	1	20		µg, Total	1	07/03/08 22:23
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	07/03/08 22:23
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	07/03/08 22:23
4-Nitrophenol	A	ND <i>R</i>	4.3	50		µg, Total	1	07/03/08 22:23
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	07/03/08 22:23
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	07/03/08 22:23
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	07/03/08 22:23
Bis(2-ethylhexyl)phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 22:23
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	07/03/08 22:23
Carbazole	A	ND	1.2	10		µg, Total	1	07/03/08 22:23
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	07/03/08 22:23
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 22:23
Dibenzofuran	A	ND	0.8	10		µg, Total	1	07/03/08 22:23
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 22:23
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	07/03/08 22:23
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	07/03/08 22:23

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

7/21/08

**ANALYTICAL RESULTS****Date:***Friday, July 18, 2008*

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #5 TOX 1 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-05B  
**Collection Date:** 06/27/08 11:20  
**Date Received:** 06/27/08 14:15

<b>Analyses</b>	<b>ST</b>	<b>Result</b>	<b>MDL</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Analyzed</b>
-----------------	-----------	---------------	------------	-----------	-------------	--------------	-----------	-----------------

<b>SEMI-VOLATILE ORGANIC ANALYTE</b>		Method: TO-13MOD						
		Prep Date/Time: 07/02/08 13:50 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	07/03/08 22:23
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	07/03/08 22:23
Hexachloroethane	A	ND	0.9	10		µg, Total	1	07/03/08 22:23
Isophorone	A	ND	1	10		µg, Total	1	07/03/08 22:23
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	07/03/08 22:23
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	07/03/08 22:23
Nitrobenzene	A	ND	1	10		µg, Total	1	07/03/08 22:23
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	07/03/08 22:23
Phenol	A	ND	0.4	10		µg, Total	1	07/03/08 22:23
<i>Surr: 2,4,6-Tribromophenol</i>	S	35.4	0	39.4-112	S	%REC	1	07/03/08 22:23
<i>Surr: 2-Fluorobiphenyl</i>	S	36.5	0	21.6-123		%REC	1	07/03/08 22:23
<i>Surr: 2-Fluorophenol</i>	S	33.4	0	27.7-78		%REC	1	07/03/08 22:23
<i>Surr: Nitrobenzene-d5</i>	S	33.5	0	36.9-89.6	S	%REC	1	07/03/08 22:23
<i>Surr: Phenol-d5</i>	S	32.9	0	46.1-73.5	S	%REC	1	07/03/08 22:23
<i>Surr: Terphenyl-d14</i>	S	43.8	0	55.8-111	S	%REC	1	07/03/08 22:23

<b>PAHS BY GC/MS-SIM</b>		Method: TO-13						
		Prep Date/Time: 07/02/08 13:50 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	07/03/08 22:23
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	07/03/08 22:23
Anthracene	A	ND	0.27	1.0		µg, Total	1	07/03/08 22:23
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	07/03/08 22:23
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	07/03/08 22:23
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	07/03/08 22:23
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	07/03/08 22:23
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	07/03/08 22:23
Chrysene	A	ND	0.57	1.0		µg, Total	1	07/03/08 22:23
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	07/03/08 22:23
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	07/03/08 22:23
Fluorene	A	ND	0.25	1.0		µg, Total	1	07/03/08 22:23
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	07/03/08 22:23
Naphthalene	A	ND	0.16	1.0		µg, Total	1	07/03/08 22:23
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	07/03/08 22:23
Pyrene	A	ND	0.44	1.0		µg, Total	1	07/03/08 22:23
<i>Surr: Nitrobenzene-d5</i>	S	33.5	0	36.9-89.6	S	%REC	1	07/03/08 22:23
<i>Surr: 2-Fluorobiphenyl</i>	S	36.5	0	21.6-123		%REC	1	07/03/08 22:23
<i>Surr: Terphenyl-d14</i>	S	43.8	0	55.8-111	S	%REC	1	07/03/08 22:23

JSA/b8

## ANALYTICAL RESULTS

Date: Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #6 TOX 2 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-06A  
**Collection Date:** 06/27/08 11:49  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15	Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	640	4	25	ppbv	50	07/01/08 20:39	
1,1,2,2-Tetrachloroethane	A	ND	0.7	2.5	ppbv	5	07/02/08 07:11	
1,1,2-Trichloroethane	A	ND	0.55	2.5	ppbv	5	07/02/08 07:11	
1,1-Dichloroethane	A	98	0.5	2.5	ppbv	5	07/02/08 07:11	
1,1-Dichloroethene	A	250	3.5	25	ppbv	50	07/01/08 20:39	
1,2-Dichloroethane	A	15	0.5	2.5	ppbv	5	07/02/08 07:11	
1,2-Dichloropropane	A	ND	0.45	2.5	ppbv	5	07/02/08 07:11	
2-Butanone	A	300	10	100	ppbv	50	07/01/08 20:39	
2-Hexanone	A	ND	0.55	10	ppbv	5	07/02/08 07:11	
4-Methyl-2-Pentanone	A	57	0.8	2.5	ppbv	5	07/02/08 07:11	
Acetone	A	470	UB	6	ppbv	50	07/01/08 20:39	
Benzene	A	620	5	25	ppbv	50	07/01/08 20:39	
Bromodichloromethane	A	ND	0.5	2.5	ppbv	5	07/02/08 07:11	
Bromoform	A	ND	0.45	2.5	ppbv	5	07/02/08 07:11	
Bromomethane	A	ND	0.4	2.5	ppbv	5	07/02/08 07:11	
Carbon disulfide	A	ND	1.6	5.0	ppbv	5	07/02/08 07:11	
Carbon tetrachloride	A	1.1	0.55	2.5	J	ppbv	5	07/02/08 07:11
Chlorobenzene	A	4.4	0.55	2.5	ppbv	5	07/02/08 07:11	
Chloroethane	A	14	0.55	2.5	ppbv	5	07/02/08 07:11	
Chloroform	A	41	0.55	2.5	ppbv	5	07/02/08 07:11	
Chloromethane	A	24	0.35	10	ppbv	5	07/02/08 07:11	
cis-1,2-Dichloroethene	A	200	4.5	25	ppbv	50	07/01/08 20:39	
cis-1,3-Dichloropropene	A	ND	0.5	2.5	ppbv	5	07/02/08 07:11	
Dibromochloromethane	A	ND	0.35	2.5	ppbv	5	07/02/08 07:11	
Ethyl benzene	A	190	5.5	25	ppbv	50	07/01/08 20:39	
m,p-Xylene	A	660	6.5	50	ppbv	50	07/01/08 20:39	
Methylene chloride	A	900	22	200	ppbv	50	07/01/08 20:39	
o-Xylene	A	280	6.5	25	ppbv	50	07/01/08 20:39	
Styrene	A	49	0.65	2.5	ppbv	5	07/02/08 07:11	
Tetrachloroethene	A	630	5.5	25	ppbv	50	07/01/08 20:39	
Toluene	A	1500	16	74	ppbv	150	07/02/08 17:56	
trans-1,2-Dichloroethene	A	15	0.4	2.5	ppbv	5	07/02/08 07:11	
trans-1,3-Dichloropropene	A	ND	0.5	2.5	ppbv	5	07/02/08 07:11	
Trichloroethene	A	490	5.5	25	ppbv	50	07/01/08 20:39	
Vinyl chloride	A	69	0.4	2.5	ppbv	5	07/02/08 07:11	
Surr: 4-Bromofluorobenzene	S	99.3	0	77.7-127	%REC	5	07/02/08 07:11	

## ANALYTICAL RESULTS

Date:

Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #6 TOX 2 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-06B  
**Collection Date:** 06/27/08 11:49  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE	Method:	TO-13MOD	Prep Date/Time: 07/02/08 13:50 Analyst: BEM					
1,2,4-Trichlorobenzene	A	ND <i>US</i>	0.9	10		µg, Total	1	07/03/08 22:48
1,2-Dichlorobenzene	A	3.2	0.7	10	J	µg, Total	1	07/03/08 22:48
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	07/03/08 22:48
1,4-Dichlorobenzene	A	ND <i>US</i>	0.9	10		µg, Total	1	07/03/08 22:48
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	07/03/08 22:48
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	07/03/08 22:48
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	07/03/08 22:48
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	07/03/08 22:48
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	07/03/08 22:48
2,4-Dinitrotoluene	A	ND <i>US</i>	0.8	10		µg, Total	1	07/03/08 22:48
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	07/03/08 22:48
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	07/03/08 22:48
2-Chlorophenol	A	ND <i>US</i>	0.7	10		µg, Total	1	07/03/08 22:48
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	07/03/08 22:48
2-Methylphenol	A	ND	0.7	10		µg, Total	1	07/03/08 22:48
2-Nitroaniline	A	ND	1	50		µg, Total	1	07/03/08 22:48
2-Nitrophenol	A	ND	1	10		µg, Total	1	07/03/08 22:48
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	07/03/08 22:48
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	07/03/08 22:48
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	07/03/08 22:48
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	07/03/08 22:48
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	07/03/08 22:48
4-Chloro-3-methylphenol	A	ND <i>US</i>	1.2	20		µg, Total	1	07/03/08 22:48
4-Chloroaniline	A	ND	1	20		µg, Total	1	07/03/08 22:48
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	07/03/08 22:48
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	07/03/08 22:48
4-Nitrophenol	A	ND <i>R</i>	4.3	50		µg, Total	1	07/03/08 22:48
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	07/03/08 22:48
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	07/03/08 22:48
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	07/03/08 22:48
Bis(2-ethylhexyl)phthalate	A	20	1.1	10		µg, Total	1	07/03/08 22:48
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	07/03/08 22:48
Carbazole	A	ND	1.2	10		µg, Total	1	07/03/08 22:48
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	07/03/08 22:48
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 22:48
Dibenzofuran	A	ND	0.8	10		µg, Total	1	07/03/08 22:48
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 22:48
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	07/03/08 22:48
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	07/03/08 22:48

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

## ANALYTICAL RESULTS

Date: Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #6 TOX 2 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-06B  
**Collection Date:** 06/27/08 11:49  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD		Prep Date/Time: 07/02/08 13:50 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	07/03/08 22:48
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	07/03/08 22:48
Hexachloroethane	A	ND	0.9	10		µg, Total	1	07/03/08 22:48
Isophorone	A	ND	1	10		µg, Total	1	07/03/08 22:48
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	07/03/08 22:48
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	07/03/08 22:48
Nitrobenzene	A	ND	1	10		µg, Total	1	07/03/08 22:48
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	07/03/08 22:48
Phenol	A	ND	0.4	10		µg, Total	1	07/03/08 22:48
Surr: 2,4,6-Tribromophenol	S	48.7	0	39.4-112		%REC	1	07/03/08 22:48
Surr: 2-Fluorobiphenyl	S	51.6	0	21.6-123		%REC	1	07/03/08 22:48
Surr: 2-Fluorophenol	S	39.5	0	27.7-78		%REC	1	07/03/08 22:48
Surr: Nitrobenzene-d5	S	42.2	0	36.9-89.6		%REC	1	07/03/08 22:48
Surr: Phenol-d5	S	38.5	0	46.1-73.5	S	%REC	1	07/03/08 22:48
Surr: Terphenyl-d14	S	54.8	0	55.8-111	S	%REC	1	07/03/08 22:48

PAHS BY GC/MS-SIM Method: TO-13		Prep Date/Time: 07/02/08 13:50 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	07/03/08 22:48
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	07/03/08 22:48
Anthracene	A	ND	0.27	1.0		µg, Total	1	07/03/08 22:48
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	07/03/08 22:48
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	07/03/08 22:48
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	07/03/08 22:48
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	07/03/08 22:48
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	07/03/08 22:48
Chrysene	A	ND	0.57	1.0		µg, Total	1	07/03/08 22:48
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	07/03/08 22:48
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	07/03/08 22:48
Fluorene	A	ND	0.25	1.0		µg, Total	1	07/03/08 22:48
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	07/03/08 22:48
Naphthalene	A	2.7	0.16	1.0		µg, Total	1	07/03/08 22:48
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	07/03/08 22:48
Pyrene	A	ND	0.44	1.0		µg, Total	1	07/03/08 22:48
Surr: Nitrobenzene-d5	S	42.2	0	36.9-89.6		%REC	1	07/03/08 22:48
Surr: 2-Fluorobiphenyl	S	51.6	0	21.6-123		%REC	1	07/03/08 22:48
Surr: Terphenyl-d14	S	54.8	0	55.8-111	S	%REC	1	07/03/08 22:48

98-108

## ANALYTICAL RESULTS

Date: Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #7 TOX 2 INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-07A  
**Collection Date:** 06/27/08 12:28  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15			Prep Date/Time:			Analyst: MAK
1,1,1-Trichloroethane	A	16000	92	580	ppbv	,200	07/15/08 15:42	
1,1,2,2-Tetrachloroethane	A	ND	8.4	30	ppbv	60	07/02/08 20:51	
1,1,2-Trichloroethane	A	77	6.6	30	ppbv	60	07/02/08 20:51	
1,1-Dichloroethane	A	3700	30	150	ppbv	300	07/02/08 19:40	
1,1-Dichloroethene	A	87	4.2	30	ppbv	60	07/02/08 20:51	
1,2-Dichloroethane	A	480	6	30	ppbv	60	07/02/08 20:51	
1,2-Dichloropropane	A	100	5.4	30	ppbv	60	07/02/08 20:51	
2-Butanone	A	7200	P	240	2300	ppbv	,200	07/15/08 15:42
2-Hexanone	A	370	6.6	120	ppbv	60	07/02/08 20:51	
4-Methyl-2-Pentanone	A	3600	48	150	ppbv	300	07/02/08 19:40	
Acetone	A	9600	UB	360	6000	ppbv	,1000	07/02/08 18:31
Benzene	A	8300	120	580	ppbv	,200	07/15/08 15:42	
Bromodichloromethane	A	ND	6	30	ppbv	60	07/02/08 20:51	
Bromoform	A	ND	5.4	30	ppbv	60	07/02/08 20:51	
Bromomethane	A	ND	4.8	30	ppbv	60	07/02/08 20:51	
Carbon disulfide	A	400	20	60	ppbv	60	07/02/08 20:51	
Carbon tetrachloride	A	ND	6.6	30	ppbv	60	07/02/08 20:51	
Chlorobenzene	A	66	6.6	30	ppbv	60	07/02/08 20:51	
Chloroethane	A	640	6.6	30	ppbv	60	07/02/08 20:51	
Chloroform	A	1100	6.6	30	ppbv	60	07/02/08 20:51	
Chloromethane	A	22	4.2	120	J	ppbv	60	07/02/08 20:51
cis-1,2-Dichloroethene	A	3200	27	150	ppbv	300	07/02/08 19:40	
cis-1,3-Dichloropropene	A	ND	6	30	ppbv	60	07/02/08 20:51	
Dibromochloromethane	A	ND	4.2	30	ppbv	60	07/02/08 20:51	
Ethyl benzene	A	5600	33	150	ppbv	300	07/02/08 19:40	
m,p-Xylene	A	20000	150	1200	ppbv	,200	07/15/08 15:42	
Methylene chloride	A	12000	J	500	4600	ppbv	,200	07/15/08 15:42
o-Xylene	A	8100	150	580	ppbv	,200	07/15/08 15:42	
Styrene	A	ND	7.8	30	ppbv	60	07/02/08 20:51	
Tetrachloroethene	A	8400	130	580	ppbv	,200	07/15/08 15:42	
Toluene	A	31000	330	1500	ppbv	,1000	07/02/08 18:31	
trans-1,2-Dichloroethene	A	49	4.8	30	ppbv	60	07/02/08 20:51	
trans-1,3-Dichloropropene	A	ND	6	30	ppbv	60	07/02/08 20:51	
Trichloroethene	A	9000	130	580	ppbv	,200	07/15/08 15:42	
Vinyl chloride	A	1400	24	150	ppbv	300	07/02/08 19:40	
Surr: 4-Bromofluorobenzene	S	101	0	77.7-127	%REC	60	07/02/08 20:51	

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

JULY 108

## ANALYTICAL RESULTS

Date:

Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #7 TOX 2 INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air      **Work Order / ID:** ME0806A91-07B  
**Collection Date:** 06/27/08 12:28  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD		Prep Date/Time: 07/02/08 13:50 Analyst: BEM					
1,2,4-Trichlorobenzene	A	ND <i>US</i> 0.9	10		µg, Total	1	07/03/08 23:13
1,2-Dichlorobenzene	A	5.8	0.7	10	J	µg, Total	1
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1
1,4-Dichlorobenzene	A	1.4	<i>J</i> 0.9	10	J	µg, Total	1
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1
2,4-Dinitrotoluene	A	ND <i>US</i>	0.8	10		µg, Total	1
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1
2-Chlorophenol	A	ND <i>US</i>	0.7	10		µg, Total	1
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1
2-Methylphenol	A	ND	0.7	10		µg, Total	1
2-Nitroaniline	A	ND	1	50		µg, Total	1
2-Nitrophenol	A	ND	1	10		µg, Total	1
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1
3-Nitroaniline	A	ND	1.3	50		µg, Total	1
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1
4-Chloro-3-methylphenol	A	ND <i>US</i>	1.2	20		µg, Total	1
4-Chloroaniline	A	ND	1	20		µg, Total	1
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1
4-Nitroaniline	A	ND	1.7	50		µg, Total	1
4-Nitrophenol	A	ND <i>R</i>	4.3	50		µg, Total	1
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1
Bis(2-ethylhexyl)phthalate	A	55	1.1	10		µg, Total	1
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1
Carbazole	A	ND	1.2	10		µg, Total	1
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1
Dibenzofuran	A	ND	0.8	10		µg, Total	1
Diethyl phthalate	A	ND	1.1	10		µg, Total	1
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

*8/11/08*

**ANALYTICAL RESULTS**

Date:

Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #7 TOX 2 INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-07B  
**Collection Date:** 06/27/08 12:28  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD		Prep Date/Time: 07/02/08 13:50 Analyst: BEM						
Hexachlorobutadiene	A	1.2	0.9	10	J	µg, Total	1	07/03/08 23:13
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	07/03/08 23:13
Hexachloroethane	A	ND	0.9	10		µg, Total	1	07/03/08 23:13
Isophorone	A	5.6	1	10	J	µg, Total	1	07/03/08 23:13
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	07/03/08 23:13
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	07/03/08 23:13
Nitrobenzene	A	ND	1	10		µg, Total	1	07/03/08 23:13
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	07/03/08 23:13
Phenol	A	ND	0.4	10		µg, Total	1	07/03/08 23:13
Surr: 2,4,6-Tribromophenol	S	51.6	0	39.4-112		%REC	1	07/03/08 23:13
Surr: 2-Fluorobiphenyl	S	53.7	0	21.6-123		%REC	1	07/03/08 23:13
Surr: 2-Fluorophenol	S	43.7	0	27.7-78		%REC	1	07/03/08 23:13
Surr: Nitrobenzene-d5	S	48.9	0	36.9-89.6		%REC	1	07/03/08 23:13
Surr: Phenol-d5	S	44.5	0	46.1-73.5	S	%REC	1	07/03/08 23:13
Surr: Terphenyl-d14	S	53.5	0	55.8-111	S	%REC	1	07/03/08 23:13

PAHS BY GC/MS-SIM Method: TO-13		Prep Date/Time: 07/02/08 13:50 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	07/03/08 23:13
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	07/03/08 23:13
Anthracene	A	ND	0.27	1.0		µg, Total	1	07/03/08 23:13
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	07/03/08 23:13
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	07/03/08 23:13
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	07/03/08 23:13
Benzol[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	07/03/08 23:13
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	07/03/08 23:13
Chrysene	A	ND	0.57	1.0		µg, Total	1	07/03/08 23:13
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	07/03/08 23:13
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	07/03/08 23:13
Fluorene	A	ND	0.25	1.0		µg, Total	1	07/03/08 23:13
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	07/03/08 23:13
Naphthalene	A	7.4	0.16	1.0		µg, Total	1	07/03/08 23:13
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	07/03/08 23:13
Pyrene	A	ND	0.44	1.0		µg, Total	1	07/03/08 23:13
Surr: Nitrobenzene-d5	S	48.9	0	36.9-89.6		%REC	1	07/03/08 23:13
Surr: 2-Fluorobiphenyl	S	53.7	0	21.6-123		%REC	1	07/03/08 23:13
Surr: Terphenyl-d14	S	53.5	0	55.8-111	S	%REC	1	07/03/08 23:13

JULY 108

## ANALYTICAL RESULTS

Date:

Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #8 TOX 2 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-08A  
**Collection Date:** 06/27/08 12:05  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15		Prep Date/Time:		Analyst: MAK
1,1,1-Trichloroethane	A	12000	240	1500	ppbv	1,000
1,1,2,2-Tetrachloroethane	A	ND	8.4	30	ppbv	60
1,1,2-Trichloroethane	A	ND	6.6	30	ppbv	60
1,1-Dichloroethane	A	3900	30	150	ppbv	300
1,1-Dichloroethene	A	91	4.2	30	ppbv	60
1,2-Dichloroethane	A	530	6	30	ppbv	60
1,2-Dichloropropane	A	110	5.4	30	ppbv	60
2-Butanone	A	6900	630	6000	ppbv	1,000
2-Hexanone	A	ND	6.6	120	ppbv	60
4-Methyl-2-Pentanone	A	3700	48	150	ppbv	300
Acetone	A	10000	4B	360	ppbv	1,000
Benzene	A	7600	300	1500	ppbv	1,000
Bromodichloromethane	A	ND	6	30	ppbv	60
Bromoform	A	ND	5.4	30	ppbv	60
Bromomethane	A	ND	4.8	30	ppbv	60
Carbon disulfide	A	670	20	60	ppbv	60
Carbon tetrachloride	A	ND	6.6	30	ppbv	60
Chlorobenzene	A	51	6.6	30	ppbv	60
Chloroethane	A	530	6.6	30	ppbv	60
Chloroform	A	1400	33	150	ppbv	300
Chloromethane	A	23	4.2	120	J	ppbv
cis-1,2-Dichloroethene	A	3000	27	150	ppbv	300
cis-1,3-Dichloropropene	A	ND	6	30	ppbv	60
Dibromochloromethane	A	ND	4.2	30	ppbv	60
Ethyl benzene	A	5600	33	150	ppbv	300
m,p-Xylene	A	17000	390	3000	ppbv	1,000
Methylene chloride	A	13000	1300	12000	ppbv	1,000
o-Xylene	A	6300	390	1500	ppbv	1,000
Styrene	A	ND	7.8	30	ppbv	60
Tetrachloroethene	A	7600	330	1500	ppbv	1,000
Toluene	A	36000	330	1500	ppbv	1,000
trans-1,2-Dichloroethene	A	48	4.8	30	ppbv	60
trans-1,3-Dichloropropene	A	ND	6	30	ppbv	60
Trichloroethene	A	7400	330	1500	ppbv	1,000
Vinyl chloride	A	1400	24	150	ppbv	300
Surr: 4-Bromofluorobenzene	S	101	0	77.7-127	%REC	60
						07/02/08 21:28

8/7/08

## ANALYTICAL RESULTS

Date: Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #8 TOX 2 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0806A91-08B  
**Collection Date:** 06/27/08 12:05  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE		Method:	TO-13MOD	Prep Date/Time: 07/02/08 13:50				Analyst: BEM
1,2,4-Trichlorobenzene	A	ND	WS 0.9	10		µg, Total	1	07/03/08 23:37
1,2-Dichlorobenzene	A	ND	0.7	10		µg, Total	1	07/03/08 23:37
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	07/03/08 23:37
1,4-Dichlorobenzene	A	ND	WS 0.9	10		µg, Total	1	07/03/08 23:37
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	07/03/08 23:37
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	07/03/08 23:37
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	07/03/08 23:37
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	07/03/08 23:37
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	07/03/08 23:37
2,4-Dinitrotoluene	A	ND	WS 0.8	10		µg, Total	1	07/03/08 23:37
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	07/03/08 23:37
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	07/03/08 23:37
2-Chlorophenol	A	ND	WS 0.7	10		µg, Total	1	07/03/08 23:37
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	07/03/08 23:37
2-Methylphenol	A	ND	0.7	10		µg, Total	1	07/03/08 23:37
2-Nitroaniline	A	ND	1	50		µg, Total	1	07/03/08 23:37
2-Nitrophenol	A	ND	1	10		µg, Total	1	07/03/08 23:37
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	07/03/08 23:37
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	07/03/08 23:37
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	07/03/08 23:37
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	07/03/08 23:37
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	07/03/08 23:37
4-Chloro-3-methylphenol	A	ND	WS 1.2	20		µg, Total	1	07/03/08 23:37
4-Chloroaniline	A	ND	1	20		µg, Total	1	07/03/08 23:37
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	07/03/08 23:37
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	07/03/08 23:37
4-Nitrophenol	A	ND	WS R 4.3	50		µg, Total	1	07/03/08 23:37
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	07/03/08 23:37
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	07/03/08 23:37
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	07/03/08 23:37
Bis(2-ethylhexyl)phthalate	A	2.3	1.1	10	J	µg, Total	1	07/03/08 23:37
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	07/03/08 23:37
Carbazole	A	ND	1.2	10		µg, Total	1	07/03/08 23:37
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	07/03/08 23:37
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 23:37
Dibenzofuran	A	ND	0.8	10		µg, Total	1	07/03/08 23:37
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	07/03/08 23:37
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	07/03/08 23:37
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	07/03/08 23:37

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

## ANALYTICAL RESULTS

Date:

Friday, July 18, 2008

**Client:** MWH, Inc.  
**Client Project:** June 2008 - Monthly Air / ACS  
**Client Sample ID:** #8 TOX 2 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air      **Work Order / ID:** ME0806A91-08B  
**Collection Date:** 06/27/08 12:05  
**Date Received:** 06/27/08 14:15

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD		Prep Date/Time: 07/02/08 13:50 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	07/03/08 23:37
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	07/03/08 23:37
Hexachloroethane	A	ND	0.9	10		µg, Total	1	07/03/08 23:37
Isophorone	A	ND	1	10		µg, Total	1	07/03/08 23:37
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	07/03/08 23:37
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	07/03/08 23:37
Nitrobenzene	A	ND	1	10		µg, Total	1	07/03/08 23:37
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	07/03/08 23:37
Phenol	A	ND	0.4	10		µg, Total	1	07/03/08 23:37
Surr: 2,4,6-Tribromophenol	S	46.2	0	39.4-112		%REC	1	07/03/08 23:37
Surr: 2-Fluorobiphenyl	S	43.5	0	21.6-123		%REC	1	07/03/08 23:37
Surr: 2-Fluorophenol	S	33.2	0	27.7-78		%REC	1	07/03/08 23:37
Surr: Nitrobenzene-d5	S	35.7	0	36.9-89.6	S	%REC	1	07/03/08 23:37
Surr: Phenol-d5	S	32.7	0	46.1-73.5	S	%REC	1	07/03/08 23:37
Surr: Terphenyl-d14	S	54.2	0	55.8-111	S	%REC	1	07/03/08 23:37

PAHS BY GC/MS-SIM Method: TO-13		Prep Date/Time: 07/02/08 13:50 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	07/03/08 23:37
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	07/03/08 23:37
Anthracene	A	ND	0.27	1.0		µg, Total	1	07/03/08 23:37
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	07/03/08 23:37
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	07/03/08 23:37
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	07/03/08 23:37
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	07/03/08 23:37
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	07/03/08 23:37
Chrysene	A	ND	0.57	1.0		µg, Total	1	07/03/08 23:37
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	07/03/08 23:37
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	07/03/08 23:37
Fluorene	A	ND	0.25	1.0		µg, Total	1	07/03/08 23:37
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	07/03/08 23:37
Naphthalene	A	ND	0.16	1.0		µg, Total	1	07/03/08 23:37
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	07/03/08 23:37
Pyrene	A	ND	0.44	1.0		µg, Total	1	07/03/08 23:37
Surr: Nitrobenzene-d5	S	35.7	0	36.9-89.6	S	%REC	1	07/03/08 23:37
Surr: 2-Fluorobiphenyl	S	43.5	0	21.6-123		%REC	1	07/03/08 23:37
Surr: Terphenyl-d14	S	54.2	0	55.8-111	S	%REC	1	07/03/08 23:37